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BRITISH ZOOLOGY.

CLASS I. QUADRUPEDS.

II. BIRDS.

Si qui veró sint in urbe sua Hospites, in Patria sua Peregrini, et cognitione semper pueri esse velint, sibi per me placeant, sibi dormiant; non ego illis hæc conscripsi, non illis vigilavi.

Camden. Britan. Præfat.

V O L. I.

L O N D O N :

PRINTED FOR BENJAMIN WHITE,
AT HORACE'S HEAD, FLEET-STREET.

M D C C L X V I I I .

BRITISH ZOOLOGY.

CLASS I. QUADRUPEDS.

II. BIRDS.

Si qui vero sint in ordine sua distincti, in Partia sua, Perogantur, et
cognoscantur, temper possit esse voluit, sibi per me placeant, sibi
dominantur, non ego illis haec contempna non illis insigni.

Admiratione tua, Pater.

V. O. J. L.

PRINTED FOR BENJAMIN WHITE,
AT ROBERTS'S HEAD, ST. MARTIN'S STREET.

MDCCLXXIII.

P R E F A C E.

AT a time, when the study of natural history seems to revive in *Europe*; and the pens of several illustrious foreigners have been employed in enumerating the productions of their respective countries, we are unwilling that our own island should remain insensible to its particular advantages; we are desirous of diverting the astonishment of our countrymen at the gifts of nature bestowed on other kingdoms, to a contemplation of those with which (at least with equal bounty) she has enriched our own.

A judicious Foreigner has well remarked, that an Englishman is excusable should he be ignorant of the papal history, where it does not relate to *Great-Britain*; but inexcusable should he neglect inquiries into the origin of parlements, the limitation of the royal prerogative, and the gradual deviation from the feudal to the present system of government.

The observation is certainly just, and the application appears too obvious to be pointed out; yet the generality of mankind can rest contented with ignorance of their native soil, while a passion for novelty attracts them to a superficial examination of the wonders of *Mexico*, or *Japan*; but these should be told, that such a passion is a sure criterion of a weak judgement: utility, truth and certainty,
A should

should alone be the point at which science should aim; and what knowledge can be more useful than of those objects with which we are most intimately connected? and where can we reason with greater certainty on such points, than in our own country, where a constant recourse may be had to the specimen of what we have under consideration? But these, and many other arguments for examining into the productions of our own island, may here be waved, as the admirable LINNÆUS has displayed them at large in an oration * which for masterly reasoning, and happy ingenuity, may vie with the best compositions.

Yet, as that great naturalist has, in the same tract, published an eulogium on *Sweden*; and as an incitement to his countrymen to apply themselves to the study of nature, enumerated the natural productions of that kingdom; we shall here attempt a parallel, and point out to the *British* reader, his native riches; many of which were probably unknown to him, or perhaps slightly regarded.

Do the heights of *Torsburg*, or *Swucku* afford more instruction to the naturalist than the mountains of *Cumberland*, or *Caernarvonshire*? whose sides are covered with a rich variety of uncommon vegetables, while their bowels are replete with the most useful minerals. The *Derbyshire* hills, abounding in all the magnificence of caves and cliffs; the

* *Aman. acad. tom. 2. p. 409. Stillingfleet's Swedish tracts. tr. 1.*

mountains of *Kerry*, and that surprizing harbour the *Bullers* of *Buchan* * may well be opposed to the rocks of *Blackulla*, or the caverns of *Skiula*. *Sweden* can no where produce a parallel to that happy combination of grandeur and beauty in *Keswick* † vale, or *Killarny* ‡ lake; nor can *Europe* shew a natural wonder equal to the *Giant's Causeway* in the north of *Ireland*.

The excellence and number of our springs (whether medicinal or incrusting) are well known to common inquirers.

Our minerals are as great in quantity, as rich in quality: of gold, indeed we cannot produce many specimens, yet sufficient to shew that it is found in this island §; but silver is found in great abundance in our lead ores, and veins of native silver in the copper ores of *Muckrus*, on the lake of *Killarny*. The hæmatites iron ores of *Cumberland*, and the beautiful columnar iron ores of the forest of *Dean*, are sufficient to display our riches in that useful commodity. No country produces so great a quantity of tin as *Cornwall*; and that county, and several others in the north

* Between *Aberdeen* and *Peterhead*.

† In *Cumberland*.

‡ In the County of *Kerry*.

§ That our country produces gold, appears in Dr. *Borlase's* excellent history of *Cornwall*, p. 214. so late as the year 1753 several pieces were found in what the miners call *stream tin*; one specimen was as thick as a goose quill; others weighed to the value of seventeen shillings, twenty seven shillings: and another even to the value of three guineas.

have been long noted for their inexhaustible veins of copper; nor less famous are the lead mines of *Derbyshire*, *Cardiganshire* and *Flintshire*, which have been worked for ages, yet shew no sign of the decline of their stores.

In all these, nature sports with great luxuriance; the crystallized lead ore of *Tralee* *, the fibrous lead ore of *Tipperary*; the laminated lead ore of *Lord Hoptoun's* mines; the crystalized tins, and the figured ores of *Zink*, are equally noted for their elegance, scarcity, and richness.

The ore of *Zink*, or *Lapis Calaminaris*, is found in vast quantities in the counties of *Somerset* and *Flint*; while *black lead* or *wadd*, a substance scarce known in other kingdoms, abounds in the mountains of *Cumberland*.

To the *Swedish Petroleum*, we may oppose the Well at *Pitchford*, and that of *St. Catherine's* near *Edenburg*; our amber and our jet, together with our inexhaustible strata of coal found in so many parts of this kingdom, will, in the article of bitumens, give us the superiority over these so much boasted productions of *Sweden*.

To avoid a tedious enumeration, we shall only mention our wonderful mines of rock salt; our allum and our vitriol works; our various marbles, alabasters, and stones; our most excellent clays and earths †; all which

* In the county of *Kerry*.

† If the inquisitive reader is desirous of a farther account of the number and excellence of our subterraneous productions,

articles, and many more unnoted here, might have furnished us with an ample field for panegyric,

Our botanical productions are not less abundant; but the works of *Ray*, which have lately been much enlarged and methodized, according to the *Linnæan* system, by the ingenious Mr. *Hudson*, in his *Flora Anglica*, are a sufficient display of our vegetable riches.

Our Zoology would be a copious subject to enlarge on, but the work in hand restrains us from anticipating our readers curiosity. We might expatiate on the clouds of *Soland* geese which breed on the *Bass* island, or *Puffinson* that of *Priestholme*: on our fish, and other marine animals; on our insects, and the various other sensitive productions of this kingdom; but we forbear a parade of useless declamation, and shall only add, that as few countries receive more advantages from their natural breed of quadrupeds, unmixed with any beast that preys on man, so, few can boast a greater variety of birds, whether local, or migratory.

This is a general view of the natural history of our own country; why then should we neglect inquiring into the various benefits that result from these instances of the wisdom of our Creator, which his divine munificence has so liberally, and so immediately placed before us? Such a neglect is certainly highly to be

tions, we refer him to the learned Dr. *Woodward's* catalogue of the *English Fossils*, London 1729, particularly to p. 5.

blamed, for (to express ourselves in the words of an eminent writer) “ the Creator did not
 “ bestow so much curiosity, and workman-
 “ ship upon his creatures, to be looked on
 “ with a careless incurious eye, especially to
 “ have them slighted or contemned; but to
 “ be admired by the rational part of the world,
 “ to magnify his own power to all the world,
 “ and the ages thereof; and since the works
 “ of the creation are all of them so many de-
 “ monstrations of the infinite wisdom and
 “ power of God, they may serve to us, as so
 “ many arguments, exciting us to a constant
 “ fear of the Deity, and a steady and hearty
 “ obedience to all his laws”.*

Much might be added to this subject, if considered in a theological light; but since the writings of *Boyle*, *Ray*, and *Derham*, fully prove that the study of natural history enforces the theory of religion and practice of morality, we had better refer to their works in general, than mangle them by imperfect quotations.

To exalt our veneration towards the Almighty, is the principal end of this sublime science; and next to that, the various benefits resulting from it to human society deserve our serious consideration.

To give an obvious instance: what wonderful changes have been made in human affairs by the discovery of an obscure mineral. The antients, ignorant of the application of

* *Derham's Phys. theol.* book XI. c. 2 4.

the magnet, timidly attempted a mere coasting navigation; while we, better informed of the uses of it, traverse the widest oceans, and by the discovery of the new world, have layed open to science, an inexhaustible fund of matter.

The rise and progress of medicine, kept pace with the advancement of this most important discovery; and tho' necessity was the parent of the mechanic arts, yet they also throve, and grew to maturity, under the same influence.

Many more instances might be added to this brief view of the utility of natural knowledge; but we shall only give some of its uses in the polite arts, which have hitherto been too little connected with it.

To instance particularly in painting, its uses are very extensive: the permanency of colors depends on the goodness of the pigments; but the various animal, vegetable, and fossil substances (out of which they are made) can only be known by repeated trials; yet the greatest artists have failed in this respect: the shadows of the divine *Raphael* have acquired an uniform blackness, which obscures the finest productions of his pencil, while the paintings of *Holbein*, *Durer*, and the *Venetian-school*, (who were admirably skilled in the knowledge of pigments) still exist in their primitive freshness.

But these advantages are small, compared to those derived from the knowledge of nature in the representation of objects: painting is an imitation of nature; now, who can imitate without consulting the original? but to

come to what is more particularly the object of our inquiries; animal and vegetable life are the essence of landscape, and often are secondary objects in historical paintings; even the sculptor in his limited province would do well to acquire a correctness of design with a perfect knowledge of the muscles of animals. But the painter should have all this and more; he should be acquainted with all their various tints, their manner of living, their peculiar motions or attitudes, and their places of abode*, or he will fall into manifest errors.

Plurimus inde labor tabulas imitando juvabit

Egregias, operumque typos, sed plura docebit

Natura ante oculos præsens, nam firmat et auget

Vim genii, ex illâque artem experientia complet.†

Descriptive poetry is still more indebted to natural knowledge, than either painting or sculpture: the poet has the whole creation for his range; nor can his art exist without borrowing metaphors, allusions, or descriptions from the face of nature, which is the only fund of great ideas. The depths of the seas, the internal caverns of the earth, and the planetary system are out of the painter's reach; but can supply the poet with the sublimest conceptions: nor is the knowledge of animals

* That great artist, Mr. *Ridinger*, of *Ausburgh*, exceeds all others in the three last particulars; nothing can equal his prints of animals for propriety of attitudes, for a just idea of their way of life, and for the beautiful and natural scenery that accompanies them. His finest works are, his *Wilde Thiere*, *Kleine Thiere*, and *Jagdbare Thiere*; but there are scarce any of his performances that can fail giving pleasure to all admirers of nature represented as herself.

† *Fresnoy de arte graph. lin. 537.*

and

and vegetables less requisite, while his creative pen adds life and motion to every object.

From hence it may be easily inferred, that an acquaintance with the works of nature is equally necessary to form a genuine and correct taste for any of the above mentioned arts. Taste is no more than a quick sensibility of imagination refined by judgement, and corrected by experience; but experience is another term for knowledge *, and to judge of natural images, we must acquire the same knowledge, and by the same means as the painter, the poet, or the sculptor.

Thus far natural history in general seems connected with the polite arts; but were we to descend into all its particular uses in common life, we should exceed the bounds of a preface: it will be therefore necessary to confine our inquiries to the investigation of a single part of the material world, which few are so ignorant as not to know is divided into the animal, vegetable, and fossil kingdoms.

Vast would be the extent of the inquiries into each of these; but tho' ambition may tempt us to pervade the whole field of science, yet a little experience will open to our views the immense tracts of natural knowledge, and we shall find it an arduous task only to investigate a single province, so as to speak with precision and certainty; without which there can be no real improvements in natural history.

* See the essay on the origin of our ideas of the sublime and beautiful.

For these reasons, a partial examination of this science is all that a considerate mind will aim at, which may perhaps be most naturally guided to give the preference to the most exalted subject of it.

Zoology is the noblest part of natural history, as it comprehends all sensitive beings, from reasoning man, through every species of animal life, till it descends to that point where sense is wholly extinct, and vegetation commences: and certainly none will deny, that life, and voluntary motion are superior to a mere vegetating principle, or the more inactive state of the fossil kingdom.

Should we follow the train of reflections which naturally arise from the contemplation of animals, they would swell this preface into a volume: and should we only mention the various uses of *British* animals in common life yet even these would greatly exceed the bounds to which we have thought it right to limit ourselves. The knowledge of *Diætetics* is a necessary branch of medicine, as by a proper attention to that article, an obstinate distemper maybe eradicated, when common remedies have failed; but this can never be attained, without the study of Zoology, which assists us greatly in learning the different qualities of animal food; and how far a difference of nutriment may contribute to cure the disease.

Cloathing is essential, not only to our comfort, but subsistence; and the number of our manu-

manufactures, relative to this single article, demand our care for their extension and improvement; especially as the maintenance of thousands depends on these important branches of commerce; yet these may be enlarged, by discovering new properties in animals, or by the farther cultivation of those already discovered. The science of Zoology is requisite for each of these; and if we reflect but a little on the unwearied diligence of our rivals the *French*, we should attend to every sister science that may any ways preserve our superiority in manufactures and commerce.

Domestic œconomy is an object of equal consequence; and the author* of the *Calendar of Flora* has established the uses of Zoology in this particular, with undeniable evidence. This excellent writer has united a happy invention, with the most solid judgment, and certainly merits the highest commendations, as a friend of human kind. Our ingenious countryman, Mr. *Stillingfleet*, in the same year has pursued almost the same plan as far as his time would permit, with equal success, and manifestly proved the utility of the project, in a learned discourse prefixed to his work†.

If then Zoology can suggest so many hints towards enlarging and improving our manufactures and agriculture; we shall not think our time misapplied, in offering to the publick,

* *Alex. Mal. Berger*.

† *Swedish tracts*, translated from the *amæn. Acad.* 2d Edition.

the NATURAL HISTORY of the *Quadrupeds* and *Birds* of GREAT-BRITAIN and IRELAND. This compilation had its peculiar difficulties; but the labor of travelling thro' a dry arrangement of the subject, was very frequently alleviated by the beautiful specimens we met with in our progress: besides, we own with pleasure that we have been greatly aided by the lovers of natural history, who since the appearance of the first edition have contributed to enrich the present with several valuable observations; by collecting and digesting these materials, we have not only rendered the work more complete, but are also encouraged to trace the *British Zoology* thro' some of the remaining classes, with all possible speed.

Let therefore every merit that may appear in the present edition, and every error that may have been suppressed from the former, be attributed to the kind informations we have received from our learned and ingenious friends; among whom we are ambitious of naming, the honourable Mr. *Daines Barrington*, *William Constable*, esq; *Joseph Banks*, esq; *Benjamin Stillingfleet*, esq; the Reverend Doctor *William Borlase*, *Thomas Falconer*, esq; of *Chester*, *Thomas Tosfield* of *Yorkshire*, esq; Mr. *Plymly* of *Longnor*, *Shropshire*, Mr. *Thomas Bolton*, of *Worlyclough*, *Yorkshire*, the Reverend Mr. *Farrington* of *Dynas*, *Caernarvonshire*, *Owen Holland*, esq; of *Conway*, *Henry Seymer*, esq; of *Hanford*, *Wilts*, Doctor *Lysons* of *Glocester*, Doctor *Solander*, of the *Museum*, Mr. *Peter*

Peter Collinson, the Reverend Mr. *White* of *Selborn, Hants*; and that Father of *British Ornithologists* Mr. *George Edwards* of the college of Physicians.

In the prosecution of our plan, we shall, to avoid the perplexity, arising from forming a new system, adopt (as far as relates to the *Quadrupeds* and *Birds*) that of the inestimable *Ray*, who advanced the study of nature far beyond all that went before him; and whose abilities, integrity, and mildness, were no less an ornament to the human species in general, than to his own country in particular. Yet, as this excellent man was in a manner the founder of systematic Zoology, so later discoveries have made a few improvements on his labors: where ever then he is mistaken in the arrangement of animals, we shall follow the method of M. *Brissou*; whose merit, as a systematic writer is not yet known; or at least, not sufficiently acknowledged among us *.

We have, in our descriptions, wholly omitted the anatomy of animals; as that part, unless executed with the greatest skill, would be no small blemish to the rest of this performance; but the reader may judge of the extent of our plan, by the following heads: the character of the genus shall first be mentioned: then the specific name: the synonyms from different authors; and the genera in which those authors have placed the animal. The

* *Le Regne Animal. Paris 1756. 4to. Ornithologie, contenant la division des oyseaux, &c. Paris 1760, 1762, 6 tom. 4to.*

names shall be given in several *European* languages *; and we shall conclude with a brief, but sufficient description, adding at the same time, the various uses, and natural history of each individual.

If this plan succeeds, in promoting the knowledge of nature in this kingdom, we shall think ourselves amply rewarded. Could our exhortations avail, we should recommend this study most earnestly to every country gentleman. To those of an active turn, we might say, that so pleasing and useful an employment would relieve the *tædium* arising from a sameness of diversions; every object would produce some new observation, and while they might seem only to gratify themselves with a present indulgence, they would be laying up a fund of useful knowledge; they would find their ideas insensibly enlarged, till they comprehended the whole of domestic œconomy, and the wise order of Providence.

To those of a sedentary disposition, this study would not only prove agreeable, but salutary: men of that turn of mind are with difficulty drawn from their books, to partake of the necessary enjoyments of air and exercise; and even when thus compelled, they profit less by

* In the ornithology the *European* names are prefixed to the author referred to in the synonyms,

<i>Italian</i>	to	Aldrovand, Olina, or Zinanni.
<i>French</i>		Brissou
<i>German</i>		Gesner or Kramer
<i>Swedish</i>		the Fauna Suecica
<i>Danish and Norwegian</i>		Brunnich.

it than men of an illiberal education. But this inconvenience would be remedied, could we induce them to observe and relish the wonders of nature; aided by philosophy, they would find in the woods and fields a series of objects, that would give to exercise charms unknown before; and enraptured with the scene, they will be ready to exclaim with the poet.

On every thorn, delightful wisdom grows;
In every rill, a sweet instruction flows. *Young.*

Thus would the contemplative naturalist learn from all he saw, to love his Creator for his goodness; to repose an implicit confidence in his wisdom; and to revere his awful omnipotence. We shall dwell no longer on this subject, than to draw this important conclusion; that health of body, and a chearful contentment of mind, are the general effects of these amusements. The latter is produced by a serious and pleasing investigation of the bounties of an all-wise and beneficent Providence; as constant and regular exercise is the best preservative of the former.

*Downing, Feb. 1.
1768.*

THO. PENNANT.

It is then men of an illiberal education. But this inconvenience would be remedied, could we induce them to observe and with the words of nature, aided by philosophy, they would find in the woods and fields a series of objects that would give to exercise changes unknown before; and accompanied with the scene, they will be ready to exclaim with the poet.

On every thorn, delightful wisdom grows;
In every rill, a sweet instruction flows.

Thus would the contemplative naturalist learn from all he saw, to love his Creator for his goodness; to repose an implicit confidence in his wisdom; and to reverse his awful omniscience. We shall dwell no longer on this subject, than to draw this important conclusion; that health of body, and a cheerful contentment of mind, are the general effects of these amusements. The latter is produced by a serious and pleasing investigation of the bounties of an all-wise and beneficent Providence; as constant and regular exercise is the best preservative of the former.

THO. PENNANT.
Dunelm, Feb. 1.
1768.

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Libro primo del Conte Giuseppe
Zinanni, in Venezia, 1737.*

C L A S S I.

Q U A D R U P E D S.

Div. I. Hoofed Quadrupeds.

II. Digitated Quadrupeds.

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Division II.

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* This character is invariably observed in the wild animals of this genus ; but in the domestic species, nature seems to sport ; sometimes omitting the fifth toe behind, often forming them imperfect, and often furnishing the animal with it. For a farther account of the osteology of this part, we refer the reader to the works of M. de Buffon, who ought, if envy would permit, to hold the first place among the modern zoologists.

*Urit enim fulgore suo qui prægravat artes
Infra se positas.*

Two cutting
teeth in each
jaw.

Five toes before, four behind; a short tail, long ears	XIII. the Hare	Page 87
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Four toes before, five behind; naked ears; long tail, covered with hair disposed circularly - -	XV. the Dor- mouse	95
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BRITISH ZOOLOGY.

Class I. QUADRUPEDS.

Div. I. HOOFED QUADRUPEDS.

Genus I. The HORSE.

Species I. The HORSE.

Raii syn. quad. 62.

Merret pinax. 166.

Gesn. quad. 404.

Klein quad. 4.

De Buffon iv. 174.

Equus auriculis brevibus erectis, juba longa. Briffon quad. 69.

Eq. Caballus. Lin. syst. 100.

Eq. cauda undique setosa. Faun. Suec. 47.

Br. Zool. 1.

N A M E S.

	HORSE.	MARE.	GELDING.
<i>Brit.</i>	March, Ceffyl	Cafeg	Dispaiddfarch
<i>Fren.</i>	Le Cheval	La Cavale, Jument	Cheval ongre
<i>Ital.</i>	Cavallo	Cavalla	
<i>Span.</i>	Cavallo	Yegua	
<i>Port.</i>	Cavallo	Egoa	
<i>Germ.</i>	Pferdt	Stut, Motſch	
<i>Dut.</i>	Paerd, Hengſt	Merrie	
<i>Swed.</i>	Hæſt	Stood, Horſs	
<i>Dan.</i>	Hæſt, Oeg, Hingſt	Stod-Hæſt, Hoppe	

THE breed of horses in *Great Britain* is as mixed as that of its inhabitants: The frequent introduction of foreign horses has given us a variety, that no single country can boast of: most other kingdoms produce only one kind, while ours, by a judicious mixture of the several species, by the happy difference of our soils, and by our superior skill

in management, may triumph over the rest of *Europe*, in having brought each quality of this noble animal to the highest perfection.

In the annals of *Newmarket*, may be found instances of horses that have literally out-stripped the wind, as the celebrated *M. Condamine* has lately shewn in his remarks * on those of *Great Britain*. *Childers* † is an amazing instance of rapidity, his speed having been more than once exerted equal to $82\frac{1}{2}$ feet in a second, or near a mile in a minute: The same horse has also run the round course at *Newmarket*, (which is about 400 yards less than 4 miles) in six minutes and forty seconds; in which case his fleetness is to that of the swiftest *Barb*, as four to three.

Horses of this kind, derive their origin from *Arabia*; the seat of the purest, and most generous breed.

The species used in hunting, is a happy combination of the former with others superior in strength, but inferior in point of speed and lineage: an union of both is necessary; for the fatigues of the chace must be supported by the spirit of the one, as well as by the vigor of the other.

No country can bring a parallel to the strength and size of our horses destined for the draught; or to the activity and strength united of those that form our cavalry.

In our capital there are instances of single horses that are able to draw on a plain, for a small space,

* In his tour to Italy.

† *M. Condamine* illustrates his remarks with the horse, *Starling*; but the report of his speed being doubtful, we chuse to instance the speed of *Childers*, as indisputable and universally known.

the weight of three tuns; but could with ease, and for a continuance draw half that weight *. The pack-horses of *Yorkshire*, employed in conveying the manufactures of that county, to the most remote parts of the kingdom, usually carry a burden of 420 pounds; and that indifferently over the highest hills of the north, as well as the most level roads; but the most remarkable proof of the strength of our *British* horses, is to be drawn from that of our mill-horses: some of these will carry at one load thirteen measures, which at a moderate computation of 70 pounds each, will amount to 910; a weight superior to that which the lesser sort of camels will bear: this will appear less surprising, as these horses are by degrees accustomed to the weight; and the distance they travel no greater than to and from the adjacent hamlets.

Our cavalry in the late campaigns, (when they had opportunity) shewed over those of our allies, as well as of the *French*, a great superiority both of strength and activity: the enemy was broken through by the impetuous charge of our squadrons; while the *German* horses, from their great weight, and inactive make, were unable to second our efforts; though those troops were actuated by the noblest ardor.

The present cavalry of this island only supports its ancient glory; it was eminent in the earliest times: our scythed † chariots, and the activity ‡ and good

* *Hollingshed* makes it a matter of boast, that in his time, five horses could draw with ease for a long journey 3000 lb. weight.

† *Covinos* vocant, quorum falcatis axibus utuntur. *Pomp. Mela*, lib. iii. c. 6.

‡ *Cæsar. Com.* lib. iv. *Strabo.* lib. iv.

discipline of our horses, even struck terror into *Cæsar's* legions: it is now impossible to trace out this species; for those which exist among the *indigenæ* of *Great Britain*, such as the little horses of *Wales* and *Cornwal*, the hobbies of *Ireland*, and the shelties of *Scotland*, though admirably well adapted to the uses of those countries, could never have been equal to the work of war. Those we employ for that purpose, or for the draught, are an off-spring of the *German* or *Flemish* breed, meliorated by our soil, and a judicious culture.

The *English* were ever attentive to an exact culture of these animals; and in very early times set a high value on their breed. The esteem that our horses were held in by foreigners so long ago as the reign of *Athelstan*, may be collected from a law of that monarch prohibiting their exportation, except they were designed as presents. These must have been the native kind, or the prohibition would have been needless, for our commerce was at that time too limited to receive improvement from any but the *German* kind, to which country their own breed could be of no value.

But when our intercourse with the other parts of *Europe* was enlarged, we soon layed hold of the advantages this gave of improving our breed. *Roger de Belesme*, Earl of *Shrewsbury* *, is the first that is on record: he introduced the *Spanish* stallions into his estate in *Powisland*, from which that part of *Wales* was for many ages celebrated for a swift and generous

* Created by *William the Conqueror*.

race of horses. *Giraldus Cambrensis*, who lived in the reign of *Henry II.* takes notice of it, and *Michael Drayton*, cotemporary with *Shakespeare*, sings their excellence in the sixth part of his *Polyolbion*. This kind was probably destined to mount our gallant nobility, or courteous knights for feats of *Chivalry*, in the generous contests of the tilt-yard. From these sprung, to speak the language of the times, the *Flower of Coursers*, whose elegant form added charms to the rider; and whose activity and managed dexterity gained him the palm in that field of gallantry and romantic honour. That this was the chief object of cultivating the mixed breed, is very probable, for racing in its *present* form was not introduced into *England*, till the reign of *James I.* the earliest notice we have of the diversion being in that reign. *Croydon* in the south *, and *Garterly* † in *Yorkshire*, were then famous horse-courses. That it was not in vogue in the preceding reign, is reasonable to imagine, for among the numerous entertainments exhibited at *Kenelworth* by *Elizabeth's* favourite on her visit there, and when no amusement then practised was omitted, we do not find horse-racing among them.

Not that we deny this diversion to be known in these kingdoms in earlier times; we only assert a different mode of it, gentlemen being then their own jockies, and riding their own horses. Lord *Herbert of Chisbury* enumerates it among the sports that gallant philosopher thought unworthy of a man of honour. “The exercise, (says he) I do not approve of, is running

* *Osborn's works*, 452. † *Drayton's Polyolbion*, song 3d.

“ of horses, there being much cheating in that kind ;
 “ neither do I see why a brave man should delight
 “ in a creature whose chief use is to help him to run
 “ away *.”

The increase of our inhabitants, and the extent of our manufactures, together with the former neglect of internal navigation to convey those manufactures, multiplied the number of our horses : an excess of wealth, before unknown in these islands, increased the luxury of carriages, and added to the necessity of an extraordinary culture of these animals : their high reputation abroad, has also made them a branch of commerce, and proved another cause of their vast increase.

As no kingdom can boast of parallel circumstances, so none can vie with us in the number of these noble quadrupeds ; it would be extremely difficult to guess at the exact amount of them, or to form a periodical account of their increase : the number seems very fluctuating : *William Fitz-Stephen* relates, that in the reign of King *Stephen*, *London* alone poured out 20,000 horsemen in the wars of those times : yet we find that in the beginning of Queen *Elizabeth*'s reign †, the whole kingdom could not supply 2000 horses to form our cavalry : and even in the year 1588, when the nation was in the most immi-

* The life of *Edward Lord Herbert of Cherbury*, published by Mr. *Walpole*, p. 51.

Jarvis Markham, who wrote on the management of horses 1599, mentions running horses ; but those were only designed for matches between gentleman and gentleman.

† Vide Sir *Edward Harwood*'s memorial. *Harleian Misc.* iv. 255.

ment danger from the *Spanish* invasion, all the cavalry which the nation could then furnish amounted only to 3000: to account for this difference we must imagine, that the number of horses which took the field in *Stephen's* reign was no more than an undisciplined rabble: The few that appeared under the banners of *Elizabeth*, a corps well formed, and such as might be opposed to so formidable an enemy as was then expected; but such is their present increase, that in the late war, the number employed was 13,575; and such is our improvement in the breed of horses, that most of those which are used in our waggons and carriages * of different kinds, might be applied to the same purpose: of those, our capital alone employs near 22,000.

The learned *M. de Buffon* has almost exhausted the subject of the natural history of the horse, and the other domestic animals; and left very little for after writers to add. We may observe, that this most noble and useful quadruped is endowed with every quality that can make it subservient to the uses of mankind; and those qualities appear in a more exalted, or in a less degree, in proportion to our various necessities.

Undaunted courage, added to a docility half-reasoning, is given to some, which fits them for military services. The spirit and emulation so apparent in others, furnish us with that species, which is admirably adapted for the course; or, the more noble and generous pleasure of the chace.

* It may also be observed, that the use of coaches was not introduced into *England* till the year 1564.

Patience and perseverance appear strongly in that most useful kind destined to bear the burdens we impose on them ; or that employed in the slavery of the draught.

Though endowed with vast strength, and great powers, they very rarely exert either to their masters prejudice ; but on the contrary, will endure fatigues, even to death, for our benefit. Providence has implanted in them a benevolent disposition, and a fear of the human race, together with a certain consciousness of the services we can render them. Most of the hoofed quadrupeds are domestic, because necessity compels them to seek our protection: wild beasts are provided with feet and claws, adapted to the forming dens and retreats from the inclemency of the weather ; but the former destitute of these advantages, are obliged to run to us for artificial shelter, and harvested provision ; as nature, in these climates, does not throughout the year supply them with necessary food.

But still, many of our tame animals must by accident endure the rigor of the season : to prevent which inconvenience, their feet (for the extremities suffer first by cold) are protected by strong hoofs of a horny substance.

The tail too is guarded with long bushy hair that protects it in both extremes of weather ; during the summer it serves by its pliancy and agility, to brush off the swarms of insects, which are perpetually attempting either to sting them, or to deposit their eggs in the *rectum* ; the same length of hair contributes to guard them from the cold in winter. But
we

we, by the absurd and cruel custom of docking, a practice peculiar to our country, deprive these animals of both advantages: in the last war our cavalry suffered so much on that account, that we now seem sensible of the error, and if we may judge from some recent orders in respect to that branch of the service *, it will for the future be corrected.

Thus is the horse provided against the two greatest evils he is subject to from the seasons: his natural diseases are few; but our ill usage, or neglect, or, which is very frequent, our over care of him, bring on a numerous train, which are often fatal. Among the distempers he is naturally subject to, are the worms, the bots, and the stone: the species of worms that infest him are the *lumbrici*, and *ascarides*; both these resemble those found in human bodies, only larger: the bots are the *erucæ*, or caterpillars of the *oesirus*, or gad-fly: these are found both in the *rectum*, and in the stomach, and when in the latter bring on convulsions, that often terminate in death.

* The following remark of a noble writer on this subject is too sensible to be omitted:

‘ I must own I am not possessed with the *English* rage of cutting off all extremities from horses. I venture to declare I should be well pleased if their tails, at least a switch or a nag tail, (but better if the whole) was left on. It is hardly credible what a difference, especially at a certain season of the year, this single alteration would make in our cavalry, which though naturally superior to all other I have ever seen, are however, long before the end of the campaign, for want of that natural defence against the flies, inferior to all: constantly sweating and fretting at the picquet, tormented and stung off their meat and stomachs, miserable and helpless; while the foreign cavalry brush off the vermin, are cool and at ease, and mend daily, instead of perishing as ours do almost visibly in the eye of the beholder.’

Method of breaking Horses, &c. by Henry Earl of Pembroke, p. 68.

The stone is a disease the horse is not frequently subject to ; yet we have seen two examples of it, the one in a horse near *High-wycombe*, that voided sixteen *calculi*, each of an inch and a half diameter; the other was of a stone taken out of the bladder of a horse, and deposited in the cabinet of the late Dr. *Mead*; weighing eleven ounces *. These stones are formed of several crusts, each very smooth and glossy ; their form triangular; but their edges rounded, as if by collision against each other.

The all-wise Creator hath finely limited the several services of domestic animals towards the human race; and ordered that the parts of such, which in their lives have been the most useful, should after death contribute the least to our benefit. The chief use that the *exuviae* of the horse can be applied to, is for collars, traces, and other parts of the harness; and thus, even after death, he preserves some analogy with his former employ. The hair of the mane is of use in making wigs; of the tail in making the bottoms of chairs, floor-cloths, and cords; and to the angler in making lines.

* *Museum Meadianum*, p. 261.

Species II. The A S S.

Asinus, Raii syn. quad. 63.

Gesn. quad. 5.

Klein. quad. 6.

De Buffon iv. 377.

Equus auriculis longis flaccidis, Br. Zool. 5.

juba brevi. Brisson quad. 70.

Equus asinus. Lin. syst. 100.

Eq. caudæ extremitate setosa cruce
nigra super humeros. Faun. Suec.

35 *.

NAMES.

Brit. Asyn, fæm. Asen

Fren. L'Ane, f. L'Anesse

Ital. Asino, Miccio. f. Miccia

Span. Asno, Borrico. f. Borrica

Port. Asno, Burro. f. Asna, Burra

Germ. Esel

Dut. Eezel

Swed. Asna

Dan. Asen, Esel.

THIS animal, tho' now so common in all parts of these islands, was entirely lost among us during the reign of queen *Elizabeth*; *Hollingshed* † informing us that in his time, “our lande did yeelde no asses.” But we are not to suppose so useful an animal was unknown in these kingdoms before that period; for mention is made of them so early as the time of king ‡ *Ethelred*, above four hundred years preceding; and again in the reign of || *Henry III.* so that it must have been owing to some accident, that the race was extinct during the days of *Elizabeth*.

* *Habitat in magnatum prædiis rarius.* Faun. Suec. 35. edit. 1746. We imagine that since that time the species is there extinct, for *Linnæus* has quite omitted it in the last edition of the *Fauna Suecica*.

† 109.

‡ When the price of a mule or young ass was 12s. *Cbron. preciosum*, 51.

|| In 1217 when the *Camerarius* of St. *Alban's* lost two asses, &c. *Cbr. pr.* 60.

We are not certain of the time it was again introduced, probably in the succeeding reign, when our intercourse with *Spain* was renewed; in which country this animal was greatly used, and where the species is in great perfection.

The afs is originally a native of *Arabia*, and other parts of the *East*: a warm climate produces the largest and the best, their size and spirit declining in proportion as they advance into colder regions: the migration of these beasts has been very slow; we see how recent their arrival is in *Great Britain*: in *Sweden* they are even at present a sort of rarity, nor does it appear by the last history of *Norway* *, that they have yet reached that country. They are at present naturalized in this kingdom; our climate and soil seems to agree with them; the breed is spread thro' all parts; and their utility is more and more experienced.

They are now introduced into many services that were before allotted to horses; which will prove of the utmost use in saving those noble animals for worthier purposes. Many of our richest mines are in situations almost inaccessible to horses; but where these sure-footed creatures may be employed to advantage, in conveying our mineral treasures to their respective marts; we may add too, that since our horses are become a considerable article of commerce, and bring annually great sums into these kingdoms; the cultivation of an animal that will in many cases supply the place of the former, and enable us to enlarge our exports, certainly merits our attention.

* *Pontoppidan's Nat. History of Norway*.

The qualities of this animal are so well known, that we need not expatiate on them; its patience and perseverance under labor, and its indifference in respect to food, need not be mentioned; any weed or thistle contents it: if it gives the preference to any vegetable, it is to the *Plantane*; for which we have often seen it neglect every other herb in the pasture. The narrow-leaved *Plantane* * is greedily eat by horses and cows: Of late years it has been greatly cultivated and sowed with clover in North Wales, particularly in *Anglesea*, where the seed is harvested, and thence dispersed thro' other parts of the principality.

The M U L E.

Mulus, *Raii syn. quad.* 64.

Gesn. quad. 702.

Asinus biformis, *Klein quad.* 6.

Charlton ex. 4.

Equus auriculis longis erectis, juba brevi. *Briffon quad.* 71.

Equus mulus, *Lin. syst.* 101.

Faun. Suec. 35. edit. 1.

Br. Zool. 6.

N A M E S.

Brit. Mul, *fæm.* Mules

Fren. Le Mulet

Ital. Mula

Span. Mulo

Port. Mula

Germ. Multhier, Mulesel

Dut. Muyl-Eesel

Swed. Mulafna

Dan. Muule, v. Muul-Esel.

THIS useful and hardy animal is the off-spring of the horse and ass, or ass and mare; those produced between the two last are esteemed the best, as the mule is observed to partake less of the male

* *Plantago maritima.* *Fl. Angl.* 52.

than the female parent ; not but they almost always inherit in some degree the obstinacy of the parent ass, tho' it must be confessed that this vice is heightened by their being injudiciously broke ; instead of mild usage, which generally corrects the worst qualities, the mule is treated with cruelty from the first ; and is so habituated to blows, that it is never mounted or loaded without expectation of ill treatment ; so that the unhappy animal either prepares to retaliate, or in the terror of bad usage, becomes invincibly retrograde. Could we prevail on our countrymen to consider this animal in the light its useful qualities merit, and pay due attention to its breaking, they might with success form it for the saddle, the draught, or the burden. The size and strength of our breed is at present so improved by the importation of the *Spanish* male asses, that we shall soon have numbers that may be adapted to each of those uses. Persons of the first quality in *Spain* are drawn by them ; for one of which (as Mr. *Clarke* informs us *) fifty or sixty guineas is no uncommon price ; nor is it surprising, if we consider how far they excel the horse in draught, in a mountainous country ; the mule being able to tread securely where the former can hardly stand.

This brief account may be closed with the general observation, that neither mules nor the spurious offspring of any other animal generate any farther ; all these productions may be looked on as monsters ; therefore nature, to preserve the original species of

* Letters on the *Spanish* nation.

animals entire and pure, wisely stops in the first instance the powers of propagation.

Genus II. The O X.

Species I. The O X.

Raii syn. quad. 70.

Merret pinax. 166.

Gesn. quad. 25, 26, 92.

Taurus domesticus. Klein. quad.
10.

Charlton ex. 8.

Bos cornibus levibus teretibus, sursum reflexis. Brisson quad. 52.

Bos taurus. Lin. syst. 98.

Bos cornibus teretibus flexis. Faun. Suec. 46.

Br. Zool. 7.

N A M E S.

	BULL.	Cow.	Ox.	CALF.
<i>Brit.</i>	Tarw	Buwch	Ych, Eidion	Llo
<i>Fren.</i>	Le Taureau	La Vache	Le Bœuf	Veau
<i>Ital.</i>	Toro	Vacca	Bue	Vitello
<i>Span.</i>	Toro	Vaca	Buey	Ternera
<i>Port.</i>	Touro	Vaca	Boy	Vitela
<i>Germ.</i>	Stier	Kue	Ochs	Kalb
<i>Dut.</i>	Stier, Bul	Koe	Os	Kalff
<i>Swed.</i>	Tiur	Ko	Noot	Kalff
<i>Dan.</i>	Tyr	Koe	Oxe, Stud	Kalv

THE climate of *Great-Britain* is above all others productive of the greatest variety and abundance of wholesome vegetables, which, to crown our happiness, are almost equally diffused thro' all its parts: this general fertility is owing to those clouded skies, which foreigners mistakenly urge as a reproach on our country; but let us chearfully endure a temporary gloom, which cloaths not only our meadows but our hills with the richest verdure. To this we owe the number, variety, and excellence of our cattle, the richness of our dairies, and innumerable other
advan-

advantages. *Cæsar* (the earliest writer who describes this island of *Great-Britain*) speaks of the numbers of our cattle, and adds that we neglected tillage, but lived on milk and flesh *. *Strabo* takes notice of our plenty of milk, but says we were ignorant of the art of making cheese †. *Mela* informs us, that the wealth of the *Britains* consisted in cattle: and in his account of *Ireland* reports that such was the richness of the pastures in that kingdom, that the cattle would even burst if they were suffered to feed in them long at a time ‡.

This preference of pasturage to tillage was delivered down from our *British* ancestors to much later times; and continued equally prevalent during the whole period of our feudal government: the chieftain, whose power and safety depended on the promptness of his vassals to execute his commands, found it his interest to encourage those employments that favoured that disposition; the vassal, who made it his glory to fly at the first call to the standard of his chieftain, was sure to prefer that employ, which might be transacted by his family with equal success during his absence. Tillage would require an attendance incompatible with the services he owed the baron, while the former occupation not only gave leisure for those duties, but furnished the hospitable board of his lord with ample provision, of which the vassal was equal partaker. The reliques of the larder of the elder *Spencer* are evident proofs of the plenty

* *Lib. 5.*

† *Lib. 4.*

‡ Adeo luxuriosa herbis non lætis modo sed etiam dulcibus, ut se exigua parte diei pecora impleant, ut nisi pabulo prohibeantur, diutius pasta dissiliant. *Lib. iii. c. 6.*

of cattle in his days; for after his winter provisions may have been supposed to have been mostly consumed, there were found, so late as the month of *May* in salt, the carcases of not fewer than 80 beeves, 600 bacons, and 600 muttons *. The accounts of the several great feasts in after times, afford amazing instances of the quantity of cattle that were consumed in them. This was owing partly to the continued attachment of the people to grazing †; partly to the preference, that the *English* at all times gave to animal food. The quantity of cattle that appear from the latest calculation to have been consumed in our metropolis, is a sufficient argument of the vast plenty of these times; particularly when we consider the great advancement of tillage, and the numberless variety of provisions, unknown to past ages, that are now introduced into these kingdoms from all parts of the world ‡.

Our breed of horned cattle has in general been so much improved by a foreign mixture, that it is difficult to point out the original kind of these islands. Those which may be supposed to have been purely *British* are far inferior in size to those on the northern part of the *European* continent: the cattle of the high-

* *Hume's history of England* ii. 153.

† *Polyd. Virgil Hist. Angl.* vol. i. 5. who wrote in the time of *Henry* the 8th. says *Angli plures pecuarii quam aratores.*

‡ That inquisitive and accurate historian *Maitland* furnishes us with this table of the quantity of cattle that were consumed in *London* above 30 years ago, when that city was far less populous than it is at present.

Beeves 98,244.	Pigs 52,000.
Calves 194,760.	Sheep and } 711,123.
Hogs 186,932.	Lambs }

lands of *Scotland* are exceeding small, and many of them, males as well as females, are hornless: the *Welsh* runts are much larger: the black cattle of *Cornwall* are of the same size with the last. The large species that is now cultivated through most parts of *Great-Britain* are either entirely of foreign extraction, or our own improved by a cross with the foreign kind. The *Lincolnshire* kind derive their size from the *Holstein* breed; and the large hornless cattle that are bred in some parts of *England* come originally from *Poland*.

As to the wild cattle of *Scotland*, which *Jonston* mentions under the name of *Bison Scoticus*, and describes as having the mane of a lion, and being entirely white*, the species is now extinct; nor is there to be found at present in any part of these kingdoms a wild breed of any sort, analogous to the domestic kinds.

Frequent mention is made of our savage cattle by historians. One relates, that *Robert Bruce*, king of *Scotland*, in chasing these animals, was preserved from the furious attacks of a wild bull by the intrepidity of one of his courtiers, from which he and his lineage acquired the name of *Turnbull*. *Fitz-Stephens*† names these animals among those that harbored in the great forest that in his days lay adjacent to *London*. Another enumerates among the provisions at the great feast‡ of *Nevil*, archbishop of *York*, six wild bulls.

* *Jonston. Nat. Hist. i. 37.*

† *Fitz-Stephens* was a monk, who lived in the time of *Henry II.* and wrote a history of *London*; a translation of it may be seen in one of the Annual Registers.

‡ *Leland's collect.*

And

And *Sibbald* assures us, that even in his time wild white cattle were found in the mountains of *Scotland**. These were the origin of the tame cattle in our islands: the *Urus* or *Aurochs*, the animal in its state of nature, no longer exists in any part of *Europe*, except it remains still in *Poland*, of which we have accounts in *Rzackzynki's* natural history of that kingdom †.

The ox is the only horned animal in these islands that will apply his strength to the service of mankind. It is now generally allowed, that in many cases oxen are more profitable in the draught than horses; their food, harness, and shoes being cheaper, and should they be lamed or grow old, an old working beast will be as good meat, and fatten as well as a young one ‡.

There is scarce any part of this animal without its use. The blood, fat, marrow, hide, hair, horns, hoofs, milk, creme, butter, cheese, whey, urine, liver, gall, spleen, bones, and dung, have each their particular use in manufactures, commerce and medicine.

The skin has been of great use in all ages. The antient *Britains*, before they knew a better method, built their boats with osiers and covered them with the hides of bulls, which served for short || coasting voyages.

* *Sib. Hist. Scot.* iii. 7.

† P. 228.

‡ *Mortimer's Husbandry*, i. 171.

|| That these *vitilia navigia*, as *Pliny* calls them, were not made for long voyages, is evident not only from their structure, but from the account given by *Solinus*, that the crew never eat during the time they were at Sea. *Vide C. Junii Solini polyhistor.* 56.

Primum cana salix madefacto vimine parvam
 Texitur in Puppim, cæsoque induta juvenco,
 Vectoris patiens, tumidum super emicat amnem :
 Sic *Venetus* stagnante *Pado*, fusoque *Britannus*
 Navigat oceano. *Lucan. lib. iv. 131.*

Vessels of this kind are still in use on the *Irish* lakes ; and on the *Dee* and *Severn* : in *Ireland* they are called *Curack*, in *England* *Coracles*, from the *British* *Cwrwgl*, a word signifying a boat of that structure.

At present, the hide, when tanned and curried, serves for boots, shoes, and numberless other conveniences of life.

Vellum is made of calves skin, and goldbeaters skin is made of a thin vellum, or the finer part of the ox's guts. The hair mixed with lime is a necessary article in building. Of the horns are made combs, boxes, handles for knives, and drinking vessels ; and when softened by water, obeying the manufacturer's hand, they are formed into pellucid laminæ for the sides of lanthorns. These last conveniences we owe to our great king *Alfred*, who first invented them to preserve his candle, time measurers, from the wind * ; or (as other writers will have it) the tapers that were set up before the reliques in the miserable tattered churches of that time †.

In medicine, the horns were employed as alexipharmics or antidotes against poison, the plague, or the small-pox ; they have been dignified with the title of *English bezoar* ; and are said to have been

* *Anderson's hist. commerce, i. 45.*

† *Staveland's hist. of churches, 103.*

found to answer the end of the oriental kind: the chips of the hoofs, and parings of the raw hides, serve to make carpenters glue.

The bones are used by mechanics, where ivory is too expensive; by which the common people are served with many neat conveniencies at an easy rate. From the *tibia* and *carpus* bones is procured an oil much used by coach-makers and others in dressing and cleaning harness, and all trappings belonging to a coach; and the bones calcined, afford a fit matter for tests for the use of the refiner in the smelting trade.

The blood is used as an excellent manure for fruit trees*. And is the basis of that fine color, the *Prussian* blue.

The fat, tallow, and fuet, furnish us with light; and are also used to præcipitate the salt that is drawn from briny springs. The gall, liver, spleen and urine, have also their place in the *materia medica*.

The uses of butter, cheese, creme and milk, in domestic œconomy; and the excellence of the latter, in furnishing a palatable nutriment for most people, whose organs of digestion are weakened, are too obvious to be insisted on.

* Evelyn's phil. disc. of earth, p. 319.

Genus III. The SHEEP.

Species I. The SHEEP.

- Ovis, *Raii syn. quad.* 73.
Gesn. quad. 71.
 Ovis aries, ovis anglica mutica
 cauda scrotoque ad genua pen-
 dulis. *Lin. syst.* 97.
 Ovis cornibus compressis lunatis.
Faun. Suec. 45.
- Aries, &c. *Klein. quad.*
 Aries laniger cauda rotunda
 brevi. *Briffon quad.* 48.
De Buffon. v. 1. tab. 1, 2.
Br. Zool. 10.

N A M E S.

	MALE.	FEMALE.	LAMB.
<i>Brit.</i>	Hwrd, Maharen	Dafad	Oen
<i>Fren.</i>	Le Belier	La Brebis	L'Agneau
<i>Ital.</i>	Montone	Pecora	Agnello
<i>Span.</i>	Carnero	Oveja	Cordero
<i>Port.</i>	Caneiro	Ovelha	Cordeiro
<i>Germ.</i>	Wider	Schaff	Lamb
<i>Dut.</i>	Ram	Schaep	Lam
<i>Swed.</i>	Wadur	Faar	Lamb
<i>Dan.</i>	Vædder, Være	Faar	Lam, agna- Gimmer Lam.

IT does not appear from any of the early writers, that the breed of this animal was cultivated among the *Britains*; the inhabitants of the inland parts of this island either went entirely naked, or were only clothed with skins. Those who lived on the sea coasts, and were the most civilized, affected the manners of the *Gauls*, and wore like them a sort of garments made of coarse wool, called *Brachæ*. These they probably had from *Gaul*, there not being the least traces of manufactures among the *Britains*, in the histories of those times.

This

This negligence may be easily accounted for, in an uncivilized nation whose wants were few, and those easily satisfied ; but what is more surprising, when after a long period we had cultivated a breed of sheep, whose fleeces were superior to those of other countries ; we still neglected to promote a woollen manufacture at home. That valuable branch of business lay for a considerable time in foreign hands ; and we were obliged to import the cloth manufactured from our own materials. There seems indeed to have been many unavailing efforts made by our monarchs to preserve both the wool and the manufacture of it among ourselves : *Henry* the second, by a patent granted to the weavers in *London*, directed that if any cloth was found made of a mixture of *Spanish* wool, it should be burnt by the mayor* ; yet so little did the weaving business advance, that *Edward* the third was obliged to permit the importation of foreign cloth in the beginning of his reign ; but soon after, by encouraging foreign artificers to settle in *England*, and instruct the natives in their trade, the manufacture increased so greatly as to enable him to prohibit the wear of foreign cloth. Yet, to shew the uncommercial genius of the people, the effects of this prohibition were checked by another law, as prejudicial to trade as the former was salutary ; this was an act of the same reign, against exporting woollen goods manufactured at home, under heavy penalties ; while the exportation of wool was not only allowed but encouraged. This

* *Stow* 419.

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- | | |
|--|------------------------------------|
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| <i>Gesn. quad.</i> 71. | Aries laniger cauda rotunda |
| Ovis aries, ovis anglica mutica | brevi. <i>Briffon quad.</i> 48. |
| cauda scrotoque ad genua pendulis. <i>Lin. syst.</i> 97. | <i>De Buffon. v. 1. tab.</i> 1, 2. |
| Ovis cornibus compressis lunatis. | <i>Br. Zool.</i> 10. |
| <i>Faun. Suec.</i> 45. | |

NAMES.

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<i>Brit.</i>	Hwrd, Maharen	Dafad	Oen
<i>Fren.</i>	Le Belier	La Brebis	L'Agneau
<i>Ital.</i>	Montone	Pecora	Agnello
<i>Span.</i>	Carnero	Oveja	Cordero
<i>Port.</i>	Caneiro	Ovelha	Cordeiro
<i>Germ.</i>	Wider	Schaff	Lamb
<i>Dut.</i>	Ram	Schaep	Lam
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* *Stow* 419.

oversight was not soon rectified, for it appears that, on the alliance that *Edward* the fourth made with the king of *Arragon*, he presented the latter with some ewes and rams of the *Coteswold* kind; which is a proof of their excellency, since they were thought acceptable to a monarch, whose dominions were so noted for the fineness of their fleeces *.

In the first year of *Richard* the third, and in the two succeeding reigns, our woollen manufactures received some improvements †; but the grand rise of all its prosperity is to be dated from the reign of queen *Elizabeth*, when the tyranny of the duke of *Alva* in the *Netherlands* drove numbers of artificers for refuge into this country, who were the founders of that immense manufacture we carry on at present. We have strong inducements to be more particular on the modern state of our woollen manufactures; but we desist, from a fear of digressing too far; our enquiries must be limited to points that have a more immediate reference to the study of *Zoology*.

No country is better supplied with materials, and those adapted to every species of the clothing business, than *Great-Britain*; and though the sheep of these islands afford fleeces of different degrees of goodness, yet there are not any but what may be used in some branch of it. *Herefordshire*, *Devonshire*, and *Coteswold downs* are noted for producing sheep with

* *Rapin* i. 605. in the note. *Stow's Annales*, 696.

† In that of *Richard*, two-yard cloths were first made. In that of *Henry* the 8th, an *Italian* taught us the use of the distaff. *Kerfies* were also first made in *England* about that time.

remarkably

remarkably fine fleeces; the *Lincolnshire* and *Warwickshire* kind, which are very large, exceed any for the quantity and goodness of their wool. The former county yields the largest sheep in these islands, where it is no uncommon thing to give fifty guineas for a ram, and a guinea for the admission of a ewe to one of the valuable males; or twenty guineas for the use of it for a certain number of ewes during one season. *Suffolk* also breeds a very valuable kind. The fleeces of the northern parts of this kingdom are inferior in fineness to those of the south; but still are of great value in different branches of our manufactures. The *Yorkshire* hills furnish the looms of that county with large quantities of wool; and that which is taken from the neck and shoulders, is used (mixed with *Spanish* wool) in some of their finest cloths.

Wales yields but a coarse wool; yet is of more extensive use than the finest *Segovian* fleeces; for rich and poor, age and youth, health and infirmities, all confess the universal benefit of the flannel manufacture.

The sheep of *Ireland* vary like those of *Great-Britain*. Those of the south and east being large, and their flesh rank. Those of the north, and the mountainous parts small, and their flesh sweet. The fleeces in the same manner differ in degrees of value.

Scotland breeds a small kind, and their fleeces are coarse. *Sibbald* (after *Boethius*) speaks of a breed in the isle of *Rona*, covered with blue wool; of another kind in the isle of *Hirta*, larger than the biggest he goat, with tails hanging almost to the ground,
and

and horns as thick, and longer than those of an ox*. He mentions another kind, which are clothed with a mixture of wool and hair; and of a fourth species, whose flesh and fleeces are yellow, and their teeth of the colour of gold; but the truth of these relations ought to be enquired into, as no other writer has mentioned them, except the credulous *Boethius*.

Besides the fleece, there is scarce any part of this animal but what is useful to mankind; the flesh is a delicate and wholesome food; the skin dressed, forms different parts of our apparel; and is used for covers of books. The entrails, properly prepared and twisted, serve for strings for various musical instruments. The bones calcined (like other bones in general) form materials for tests for the refiner. The milk is thicker than that of cows; and consequently yields a greater quantity of butter and cheese; and in some places is so rich, that it will not produce the cheese without a mixture of water to make it part from the whey. The dung is a remarkable rich manure; insomuch that the folding of sheep is become too useful a branch of husbandry

* *Gmelin* describes an animal he found in *Siberia*, that in many particulars agrees with this; he calls it *Rupicapra cornubus arietinis*; *Linnaeus* styles it *Capra ammon*. *Syst.* 97. and *Gesner*, p. 934. imagines it to be the *Musimon* of the antients; the horns of the *Siberian* animal are two yards long, their weight above thirty pounds. As we have such good authority for the existence of such a quadruped, we may venture to give credit to *Boethius's* account, that the same kind was once found in *Hirta*. *M. de Buffon*, tom. xi. p. 352. describes it under the name of *Le Mouflon*, and with great appearance of reason imagines it to be the sheep in its wild state. In the second plate of this edition is given the figure of the horns of this animal, from the *Petrop. Transactions*. Tom. iv.

for the farmer to neglect. To conclude, whether we consider the advantages that result from this animal to individuals in particular, or to these kingdoms in general, we may with *Columella* consider this in one sense, as the first of the domestic animals. *Post majores quadrupedes ovilli pecoris secunda ratio est; quæ prima sit si ad utilitatis magnitudinem referas. Nam id præcipue contra frigoris violentiam protegit, corporibusque nostris liberaliora præbet velamina; et etiam elegantium mensas jucundis et numerosis dapibus exornat* *.

The sheep, as to its nature, is a most innocent, mild and simple animal; and conscious of its own defenceless state, remarkably timid: if attacked when attended by its lamb, it will make some shew of defence, by stamping with its feet and pushing with its head; it is a gregarious animal, is fond of any jingling noise, for which reason the leader of the flock has in many places a bell hung round its neck, which the others will constantly follow; it is subject to many diseases: some arise from insects which deposite their eggs in different parts of the animal; others are caused by their being kept in wet pastures; for as the sheep requires but little drink, it is naturally fond of a dry soil. The dropsy, vertigo (the *pendro* of the Welsh) the pthifick, jaundice, and worms in the liver † annually make great havoc among our flocks: for the first disease, the shepherd finds a remedy by turning the infected into fields of broom; which plant has been also found to

* *De re rustica, lib. vii. c. 2.*

† *Fasciola hepatica, Lin. syst. 648.*

be very efficacious in the same disorder among the human species.

The sheep is also infested by different sorts of insects; like the horse it has its peculiar *Oestrus* or *Gadfly*, which deposits its eggs above the nose in the frontal sinuses; when those turn into maggots they become excessive painful, and cause those violent agitations that we so often see the animal in. The *French* shepherds make a common practice of easing the sheep, by trepanning and taking out the maggot; this practice is sometimes used by the *English* shepherds, but not always with the same success: besides these insects, the sheep is troubled with a kind of tick and louse, which magpies and starlings contribute to ease it of, by lighting on its back, and picking the insects off.

Genus

Genus IV. The G O A T.

Species I. The G O A T.

*Raii syn. quad. 77.**Meyer's an. i. Tab. 68.**Charlton ex. 9.**Klein quad. 15.**Gesn. quad. 266. 268.**De Buffon. v. 59. Tab. 8. 9.**Hircus cornibus interius cultratis,
exterius rotundatis, infra cari-
natis, arcuatis. Briffon quad. 38.**Capra Hircus, Lin. syst. 94.**Capra cornibus carinatis arcuatis,**Faun. Suec. 44.**Br. Zool. 13.*

N A M E S.

	MALE.	FEMALE.	KID.
<i>Brit.</i>	Bwch	Gafr	Mynn
<i>Fren.</i>	Le Bouc	La Chevre	Chevreau
<i>Ital.</i>	Becco	Capra	Capretto
<i>Span.</i>	Cabron	Cabra	Cabrito
<i>Port.</i>	Cabram	Cabra	Cabrito
<i>Germ.</i>	Bock	Geisz	Bocklin
<i>Dut.</i>	Bok	Giyt	
<i>Swed.</i>	Bock	Geet	Kiidh
<i>Dan.</i>	Buk, Geedebuk	Geed	Kid

THE goat is the most local of any of our domestic animals, confining itself to the mountainous parts of these islands: his most beloved food is the tops of the boughs, or the tender bark of young trees; on which account he is so prejudicial to plantations, that it would be imprudent to draw him from his native rocks, except some method could be thought on to obviate this evil. We have been informed, that there is a freeholder in the parish of *Trawsfynydd*, in *Merionethshire*, who hath, for several years past, broke the teeth of his goats short off with a pair of pincers, to preserve his trees.

This practice has certainly efficacy sufficient to prevent the mischief, and may be recommended to those who keep them for their singularity; but ought by no means to be encouraged, when those animals are preserved for the sake of their milk, as the great salubrity of that medicine arises from their promiscuous feeding.

This quadruped contributes in various instances to the necessities of human life; as food, as physick, and as cloathing; the whitest wigs are made of its hair; for which purpose that of the he-goat is most in request; the whitest and clearest is selected from that which grows on the haunches, where it is longest and thickest; a good skin well haired is sold for a guinea; though a skin of bad hue, and so yellow as to baffle the barber's skill to bleach, will not fetch above eighteen-pence, or two shillings.

The *Welch* goats are far superior in size, and in length and fineness of hair, to those of other mountainous countries. Their usual color is white: those of *France* and the *Alps* are short-haired, reddish, and their horns small. We have seen the horns of a *Cambrian* he-goat three feet two inches long, and three feet from tip to tip.

The suet of the goat is in great esteem, as well as the hair. Many of the inhabitants of *Caernarvonshire* suffer these animals to run wild on the rocks during winter as well as summer, and kill them in *October*, for the sake of their fat, either by shooting them with bullets, or running them down with dogs like deer. The goats killed for this purpose, are about four or five years old. Their suet will

will make candles, far superior in whiteness and goodness to those made from that of the sheep or the ox, and accordingly brings a much greater price in the market: nor are the horns without their use, the country people making of them excellent handles for tucks and penknives. The skin is peculiarly well adapted for the glove manufactory, especially that of the kid: abroad it is dressed and made into stockings, bed-ticks, bolsters, * bed-hangings, sheets, and even shirts. In the army it covers the horseman's arms, and carries the foot soldiers provisions. As it takes a dye better than any other skin; it was formerly much used for hangings in the houses of people of fortune; being susceptible of the richest colors, and when flowered and ornamented with gold and silver, became an elegant and superb furniture.

The flesh is of great use to the inhabitants of the country where it resides; and affords them a cheap and plentiful provision in the winter months, when the kids are brought to market. The haunches of the goat are frequently salted and dried, and supply all the uses of bacon: this by the natives is called *Coch yr wden*, or hung venison.

The meat of a splayed goat of six or seven years old, (which is called *Hyfr*) is reckoned the best; being generally very sweet and fat. This makes an excellent pasty; goes under the name of rock venison, and is little inferior to that of the deer. Thus nature

* Bolsters made of the hair of a goat were in use in the days of *Saul*; as appears from *I. Samuel*, c. 19. v. 13. The species very probably was that now called the *angora* goat, which is only found in the *East*, and whose soft and silky hair supplied a most luxurious couch.

provides even on the tops of high and craggy mountains, not only necessaries, but delicacies for the inhabitants.

The milk of the goat is sweet, nourishing and medicinal; it is an excellent succedaneum for ass's milk; and has (with a tea-spoonful of hartshorn drank warm in bed in the morning, and at four o'clock in the afternoon, and repeated for some time) been a cure for phtifical people, before they were gone too far. In some of the mountainous parts of *Scotland* and *Ireland*, the milk is made into whey; which has done wonders in this and other cases, where coolers and restoratives are necessary: and to many of those places, there is a great resort of patients of all ranks, as there is in *England* to the *Spaws* or *Baths*. It is not surprizing that the milk of this animal is so salutary, as it brouzes only on the tops, tendrils and flowers of the mountain shrubs, and medicinal herbs; rejecting the grosser parts. The blood of the he-goat dried, is a great recipe in some families for the pleurisy and inflammatory disorders*.

Cheese made of goats milk, is much valued in some of our mountainous countries, when kept to proper age; but has a peculiar taste and flavour.

The rutting season of these animals, is from the beginning of *September* to *November*; at that time the males drive whole flocks of the females continually from place to place, and fill the whole atmosphere around them with their strong and ungrateful

* This remedy is taken notice of even by Dr. *Mead* in his *monita medica*, p. 35. under the article *pleuritis*. The *Germans* use that of the *Shin-bock* or *Ibex*.

odor;

odor; which though as disagreeable as *asla fætida* itself, yet may be conducive to prevent many distempers, and to cure nervous and hysterical ones. Horses are imagined to be much refreshed with it; on which account many persons keep a he-goat in their studs or stables.

Goats go with young four months and a half, and bring forth from the latter end of *February* to the latter end of *April*: Having only two teats, they bear generally but two young, and sometimes three; and in good warm pastures there have been instances, though rare, of their bringing four at a time: both young and old are affected by the weather: a rainy season makes them thin; a dry sunny one makes them fat and blythe: their excessive venery prevents longævity, for they seldom live above eleven or twelve years.

These animals with amazing swiftness and safety, climb up the most rugged rocks, and ascend the most dangerous places: They can stand unmoved on the highest precipices, and so balance their center of gravity, as to fix themselves in such situations with security and firmness; so that we seldom hear of their falling, or breaking their necks. When two are yoked together, as is frequently practised; they will, as if by consent, take large and hazardous leaps; yet so well time their mutual efforts, as rarely to miscarry in the attempt.

Genus V. The S T A G.

Species I. The S T A G, or R E D D E E R.

Red Deer, Stag or Hart. *Cervus* *Cervus cornibus teretibus ad latera incurvis.* *Briffon. quad. 58.*
Raii syn. quad. 84.
Charlt. ex. 11. *Cervus Elaphus. Lin. syst. 93.*
Meyer's an. Tab. 22. *C. cornibus ramosis teretibus recurvatis. Faun Suec. 40.*
Gesner quad. 326. *C. nobilis. Klein. quad. 23.*
Grew's Museum, 21.
De Buffon, Tom. vi. 63. Tab. 9, 10. Br. Zool. 15.

N A M E S.

	S T A G.	H I N D.	Y O U N G, or C A L F.
<i>Brit.</i>	Carw	Ewig	Elain
<i>Fren.</i>	Le Cerf	La Biche	Faon
<i>Ital.</i>	Cervio	Cervia	
<i>Span.</i>	Ciervo	Cierva	
<i>Port.</i>	Cervo	Cerva	
<i>Germ.</i>	Hirtz, Hirsch	Hint	Hinde kalb
<i>Dutch,</i>	Hart	Hinde	
<i>Swed.</i>	Hiort, Kronhiort	Hind	
<i>Dan.</i>	Kronhiort	Hind	Kid, or Hind kalv

Species II. The B U C K.

Fallow deer, or buck; *cervus* *summitate palmata. Briffon*
platyceros. Raii. syn. quad. 85. quad. 62.
Dama vulgaris. Gesner quad. 307. *Cervus dama. Cervus corni-*
Meyer's an. Tom. i. Tab. 71. *bus ramosis recurvatis com-*
De Buffon. Tom. vi. 161. Tab. 27, 28. *pressis: summitatibus palma-*
Cervus cornuum unica et altiore *Faun. Suec. 42. Br. Zool. 15.*
Cervus palmatus. Klein. quad. 25.

N A M E S.

	B U C K.	D O E.	F A W N.
<i>Brit.</i>	Hydd	Hyddes	Elain
<i>Fren.</i>	Le Dain	La Daine	Faon
<i>Ital.</i>	Daino		Cerbiatto
<i>Span.</i>	Gamo, corza		Venadito
<i>Port.</i>	Corza		Veado
<i>Germ.</i>	Damhirsch		
<i>Swed.</i>	Dof, Dof hiort		
<i>Dan.</i>	Daae Dijr		

AT first, the beasts of chace had this whole island for their range; they knew no other limits than that

that of the ocean ; nor confessed any particular master. When the *Saxons* had established themselves in the *Heptarchy*, they were reserved by each sovereign for his own particular diversion : hunting and war in those uncivilized ages were the only employ of the great ; their active, but uncultivated minds, being susceptible of no pleasures but those of a violent kind, such as gave exercise to their bodies, and prevented the pain of thinking.

But as the *Saxon* kings only appropriated those lands to the use of forests which were unoccupied ; so no individuals received any injury ; but when the conquest had settled the *Norman* line on the throne, this passion for the chase was carried to an excess, which involved every civil right in a general ruin ; it superseded the consideration of religion even in a superstitious age : the village communities, nay, even the most sacred ædifices were turned into one vast waste, to make room for animals : the objects of a lawless tyrant's pleasure. The new forest in *Hampshire* is too trite an instance to be dwelt on : sanguinary laws were enacted to preserve the game ; and in the reigns of *William Rufus*, and *Henry* the first, it was less criminal to destroy one of the human species than a beast of chase *. Thus it continued while the *Norman* line filled the throne ; but when the *Saxon* line was restored under *Henry* the second, the rigor of the forest laws was immediately softened.

When our *Barons* began to form a power, they

* An ancient historian speaks thus of the penalties incurred ; *Si ceruum caperent aut aprum oculos eis evellebat ; amavit enim ferat tanquam erat pater earum.*

claimed a vast, but more limited tract for a diversion that the *English* were always fond of : They were very jealous of any encroachments on their respective bounds, which were often the cause of deadly feuds ; such a one gave cause to the fatal day of *Chevy-chace*, a fact, though recorded only in a ballad, may, from what we know of the manners of the times, be founded on truth ; not that it was attended with all the circumstances the author of that natural, but heroic composition hath given it, for on that day neither a *Percy* nor a *Douglas* fell : here the poet seems to have claimed his privilege, and mixed with this fray some of the events of the battle of *Otterbourne*.

When property became happily more divided by the relaxation of the feudal tenures, these extensive hunting-grounds became more limited ; and as tillage and husbandry increased, the beasts of chace were obliged to give way to others more useful to the community. Those vast tracts of land, before dedicated to hunting, were then contracted ; and in proportion as the useful arts gained ground, either lost their original destination, or gave rise to the invention of *Parks*. Liberty and the arts seem coeval, for when once the latter got footing, the former protected the labors of the industrious from being ruined by the licentiousness of the sportsman, or being devoured by the objects of his diversion : for this reason, the subjects of a despotic government still experience the inconveniences of vast wastes, and forests, the terrors of the neighbouring husbandmen * ; while in our well-

* In *Germany* the peasants are often obliged to watch their grounds the whole night, to preserve the fences and corn from being destroyed by the deer.

regulated monarchy, very few chaces remain: we still indulge ourselves in the generous pleasure of hunting, but confine the deer-kind to Parks, of which *England* boasts of more than any other kingdom in *Europe*. Our equal laws allow every man his pleasure; but confine them in such bounds, as prevent them from being injurious to the meanest of the community. Before the reformation, our prelates seem to have guarded sufficiently against the want of this amusement, the see of *Norwich* in particular, being possessed about that time of thirteen parks *. They seem to have forgot good king *Edgar's* advice, *Docemus etiam ut sacerdos non sit venator neque accipitrarius neque potator, sed incumbat suis libris sicut ordinem ipsius decet* †.

The stag and buck agree in their nature; which is so universally known as to render any account of it unnecessary: the first is become less common than it was formerly; its excessive vitiousness during the rutting season, and the badness of its flesh, induce most people to part with the species. Stags are still found wild in the highlands of *Scotland*, but are smaller than those of *England*. They are likewise met with on the moors that border on *Cornwal* and *Devonshire*, and in *Ireland* on the mountains of *Kerry*, where they add greatly to the magnificence of the romantic scenery of the lake of *Killarny*.

We have in *England* two varieties of fallow-deer which are said to be of foreign origin: The beautiful spotted kind, supposed to have been brought from *Bengal*; and the very deep brown sort, that are

* *Peacham's Compleat Gentleman*, 261.

† *Leges Saxon.* 87.

now so common in several parts of this kingdom. These were introduced here by king *James* the first out of *Norway* *, where he passed some time when he visited his intended bride *Mary* of *Denmark* †. He observed their hardiness; and that they could endure, even in that severe climate, the winter without fodder. He first brought some into *Scotland*, and from thence transported them into his chaces of *Enfield* and *Epping*, to be near his palace of *Theobalds*; for it is well known, that monarch was in one part of his character the *Nimrod* of his days, fond to excess of hunting, that image of war, although he detested the reality.

The uses of these animals are almost similar; the skin of the buck and doe is sufficiently known to every one; and the horns of the stag are of great use in mechanics; they, as well as the horns of the rest of the deer kind, being excessively compact, solid, hard and weighty; and make excellent handles for cutteaus, knives, and several other utensils. They abound in that salt, which is the basis of the spirit of *Hartshorn*; and the remains (after the salts are extracted) being calcined, become a valuable astringent in fluxes, which is known by the name of burnt *Hartshorn*: Besides these uses in mechanics and medicine, there is an instance in *Giraldus Cambrensis*, of a countess of *Chester*, who kept milch hinds, and made cheese, of their milk some of which she presented to archbishop *Baldwin*, in his itinerary through *Wales*, in the year 1188. ‡.

* This we relate on the authority of Mr. *Peter Collinson*.

† One of the *Welsh* names of this animal (*Geiwr-danas*, or *Danish* goat) implies that it was brought from some of the *Danish* dominions. *Ed. Lbwyd. Ph. tr. No. 334.* ‡ *Girald. Camb. Itin. p. 216.*

Species III. The ROEBUCK.

Caprea Plinii,	Cervus cornibus teretibus erectis.
Capreolus Vulgo. Raii syn. Briffon quad. 61.	
quad. 89.	De Buffon, Tom. vi. 289. Tab.
Camd. Brit. ii. 771.	32, 33.
Meyer's anim. ii. Tab. 73.	Cervus minimus, Klein quad. 24.
Capreolus, Sib. Scot. pars 3. 9.	Cervus capreolus, Lin. syst. 94.
Caprea capreolus. Dorcas. Gesf.	C. Cornibus ramosis teretibus e-
ner. quad. 296.	rectis, summitate bifida, Faun.
Merret pinax. 166.	Suéc. 43. Br. Zool. 18.

NAMES.

Brit. Iwrch, fœm. Iyrchell	Port. Cabra montes
Fren. Le Chevreuil	Ger. Reechbock, fœm. Reechgeis
Ital. Capriolo	Swed. Radiur; Rabock
Span. Zorlito, Cabronzillo montes	Dan. Raaedijr Raaebuk

THE roebuck prefers a mountainous woody country to a plain one; was formerly very common in *Wales*, in the north of *England*, and in *Scotland*; but at present the species no longer exists in any part of *Great-Britain*, except in the *Scottish* highlands.

This is the least of the deer kind, being only three feet four inches long, and two feet two inches high: The horns are from eight to nine inches long, upright, round, and divided into only three branches; their lower part is fulcated lengthways, and extremely rugged; of this part is made handles for cousteaus, knives, &c. The body is covered with very long hair, well adapted to the rigor of the highland air; the lower part of each hair is ash-color; near the ends is a narrow bar of black, and the points are yellow: The hairs on the face are black, tipped with ash-color; the ears are long, their insides of a pale yellow,

yellow, and covered with long hair, the spaces bordering on the eyes and mouth are black.

The chest, belly, and legs, and the inside of the thighs, are of a yellowish white, the rump is of a pure white; the tail is very short.

The make of the roebuck is very elegant, and formed for agility: these animals do not keep in herds like other deer, but only in families; they bring two fawns at a time, which the female is obliged to conceal from the buck while they are very young. The flesh of these creatures is reckoned a delicate food.

In the old *Welsh* laws, a roebuck was valued at the same price as a she-goat: a stag at the price of an ox; and a fallow deer was esteemed equal to that of a cow; or, as some say, a he-goat *.

It will not be foreign to the present subject, to mention the vast horns frequently found in *Ireland*, and others sometimes met with in our own kingdom. The latter are evidently of the stag kind, but much stronger, thicker, heavier, and furnished with fewer antlers than those of the present race; of those some have been found on the sea-coast of *Lancashire* †, and a single horn was dug a few years ago out of the sands near *Chester*. Those found in ‡ *Ireland* must be referred to the elk kind, but of a species different from the *European*, being provided with brow antlers which that wants. Entire skeletons of this animal are sometimes met with; the soil a white marle. Some of these horns are four feet between

* *Leges Wallicæ*, 258.

† *Ph. tr.* No. 422.

‡ No. 227. *Boate's Nat. Hist. Ireland*, 137.

tip and tip. Not the faintest account is left of the existence of these animals, so that they may possibly be ranked among those remains which fossilists distinguish by the title of diluvian. We shall leave this question to be decided by the joint efforts of the naturalist and antiquarian.

Genus VI. The H O G.

Species I. The H O G.

<i>Sus</i> , seu <i>Porcus domesticus</i> .	<i>De Buffon Tom. v. 99. Tab. 6. 17.</i>
<i>Raii syn. quad. 92.</i>	<i>Klein quad. 25.</i>
<i>Gesner quad. 872.</i>	<i>Sus scrofa, Lin. syst. 102.</i>
<i>Charlton ex. 14.</i>	<i>Sus dorso antice setoso, cauda pilosa. Faun. Suec. 21.</i>
<i>Sus caudatus auriculis oblongis acutis, cauda pilosa. Brisson quad. 74.</i>	<i>Br. Zool. 19.</i>

N A M E S.

	B O A R.	S o w.	H o g.
<i>Brit.</i>	Baedd	Hwch	Mochyn
<i>Fren.</i>	Le Verrat	La Truye	Porc
<i>Ital.</i>	Verro	Porca	Porco
<i>Span.</i>	Berraco	Puerca	Puerco
<i>Port.</i>		Porca	Porco
<i>Germ.</i>	Æber	Sauw	Barg
<i>Dut.</i>	Beer	Soch	Varken
<i>Swed.</i>		Swiin	
<i>Dan.</i>	Orne	Soë	

ACCORDING to common appearances, the hog is certainly the most impure and filthy of all quadrupeds: we should however reflect that filthiness is an idea merely relative to ourselves; but we form a partial judgment from our own sensations, and overlook that wise maxim of providence, that every part of the creation should have its respective inhabitants.

tants. By this œconomy of nature, the earth is never overstocked, nor any part of the creation useless. This observation may be exemplified in the animal before us; the hog alone devouring what is the refuse of all the rest, and contributing not only to remove what would be a nuisance to the human race; but also converting the most nauseous offals into the richest nutriment: for this reason its stomach is capacious, and its gluttony excessive; not that its palate is insensible to the difference of eatables; for where it finds variety, it will reject the worst with as distinguishing a taste as other quadrupeds *. In the orchards of peach-trees in *North-America*, where hogs have plenty of delicious food, it is observed that they will reject the fruit that has lain but a few hours on the ground, and continue on the watch for a long time for a fresh wind-fall.

This animal has (not unaptly) been compared to a miser, who is useless and rapacious in his life; but on his death becomes of public use, by the very effects of his sordid manners. The hog during life does not render the least service to mankind, except in removing that filth which other animals reject: his more than common brutality, urges him to devour even his own off-spring. All other domestic quadru-

* The ingenious author of the *Pan Suecus*, has proved this beyond contradiction, having with great industry drawn up tables of the number of vegetables, which each domestic animal chuses, or rejects: and it is found that the hog eats but 72, and refuses 171 plants,

The Ox	eats	276.	rejects	218.
Goat		449.		126.
Sheep		387.		141.
Horse		262.		212.

Amœn. Acad. ii. 203.

pedes

pede shew some degree of respect to mankind ; and even a sort of tenderness for us in our helpless years ; but this animal will devour infants, whenever it has opportunity.

The parts of this animal are finely adapted to its way of life : as its method of feeding is by turning up the earth with its nose for roots of different kinds ; so nature has given it a more prone form than other animals ; a strong brawny neck ; eyes small, and placed high in the head ; a long snout, nose callous and tough, and a quick sense of smelling to trace out its food. Its intestines have a strong resemblance to those of the human species ; a circumstance that should mortify our pride. The external form of its body is very unweildy, yet, by the strength of its tendons, the wild boar (which is only a variety of the common kind) is enabled to fly from the hunters with amazing agility : the back toe on the feet of this animal prevents its slipping while it descends declivities, and must be of singular use when pursued : yet, notwithstanding its powers of motion, it is by nature stupid, inactive, and drowsy ; much inclined to increase in fat, which is disposed in a different manner from other animals, and forms a regular coat over the whole body. It is restless at a change of weather, and in certain high winds is so agitated as to run violently, screaming horribly at the same time : it is fond of wallowing in the dirt, either to cool its surfeited body, or to destroy the lice, ticks, and other insects with which it is infested. Its diseases generally arise from intemperence ; measles, impostumes, and scrophulous complaints are reckoned among them.

Linnaeus observes that its flesh is a wholesome food for athletic constitutions, or those that use much exercise; but bad for such as lead a sedentary life: it is though of most universal use, and furnishes numberless materials for epicurism, among which brawn is a kind peculiar to *England*. The flesh of the hog is an article of the first importance to a naval and commercial nation, for it takes salt better than any other kind, and consequently is capable of being preserved longer. The lard is of great use in medicine, being an ingredient in various sorts of plaisters, either pure, or in the form of pomatum; and the bristles are formed into brushes of several kinds.

The wild-boar was formerly a native of our country, as appears from the laws of *Hoel dda* *, who permitted his grand huntsman to chase that animal from the middle of *November* to the beginning of *December*. *William* the Conqueror punished with the loss of their eyes, any that were convicted of killing the wild-boar, the stag, or the roebuck †; and *Fitz-Stephens* tells us, that the vast forest that in his time grew on the north side of *London*, was the retreat of stags, fallow deer, wild-boars, and bulls.

* *Leges Wallicæ*, 41.

† *Leges Saxon*. 292.

Div. II. DIGITATED QUADRUPEDS.

Genus VII. The C A T.

Species I. The DOMESTIC CAT.

- | | | |
|-----------------------------------|-------------|---------------------------------------|
| <i>Felis domestica seu catus.</i> | <i>Raii</i> | <i>De Buffon, Tom. vi. 3. Tab. 2.</i> |
| <i>syn. quad. 170.</i> | | <i>Felis catus, Lin. syst. 62.</i> |
| <i>Charlton ex. 20.</i> | | <i>Felis cauda elongata, auribus</i> |
| <i>Meyer's an. i. Tab. 15.</i> | | <i>æqualibus. Faun. Suec. 9.</i> |
| <i>Gesner quad. 317.</i> | | <i>Br. Zool. 21.</i> |
| <i>Briffon quad. 191.</i> | | |

N A M E S.

- | | | | |
|--------------|----------------------------|--------------|-------------------------------|
| <i>Brit.</i> | <i>Cath, mas. Gwr cath</i> | <i>Germ.</i> | <i>Katz</i> |
| <i>Fren.</i> | <i>Le Chat</i> | <i>Dut.</i> | <i>Cyperse Kat. Huyfskat.</i> |
| <i>Ital.</i> | <i>Gatto</i> | <i>Swed.</i> | <i>Katta</i> |
| <i>Span.</i> | <i>Gato</i> | <i>Dan.</i> | <i>Kat</i> |
| <i>Port.</i> | <i>Gato</i> | | |

THIS animal, is so well known as to make a description of it unnecessary. It is an useful, but deceitful domestic ; active, neat, sedate, intent on its prey. When pleased purres and moves its tail : when angry spits, hisses, and strikes with its foot. When walking, it draws in its claws : it drinks little ; is fond of fish : its urine is corrosive : it buries its dung : it washes his face with its fore-foot, (*Linnaeus* says at the approach of a storm) the female is remarkably falacious ; a piteous, squalling, jarring lover. Its eyes shine in the night : its hair when rubbed in the dark emits fire : it is even proverbially tenacious of life : always lights on its feet : is fond of perfumes ; *Marum, Cat-mint, valerian, &c.* *

* Vide. *Lin. syst.*

Our ancestors seemed to have had a high sense of the utility of this animal. That excellent Prince *Hoel dda*, or *Howel the Good*, did not think it beneath him (among his laws relating to the Prices, &c. of animals *,) to include that of the cat; and to describe the qualities it ought to have. The price of a kitling before it could see, was to be a penny; till it caught a mouse two-pence; when it commenced mouser four-pence. It was required besides, that it should be perfect in its senses of hearing and seeing; be a good mouser; have the claws whole, and be a good nurse: but if it failed in any of these qualities, the seller was to forfeit to the buyer the third part of its value. If any one stole or killed the cat that guarded the Prince's granary, he was to forfeit a milch ewe, its fleece and lamb; or as much wheat as when poured on the cat suspended by its tail (the head touching the floor) would form a heap high enough to cover the tip of the former †. This last quotation is not only curious, as being an evidence of the simplicity of ancient manners, but it almost proves to a demonstration that cats are not aborigines of these islands; or known to the earliest inhabitants. The large prices set on them, (if we consider the high value of species at that time ‡) and the great care taken of the improvement and breed of an animal that multiplies so fast, are almost certain proofs of their being little known at that period.

* *Leges Wallicæ*, p. 247, 248.

† Sir *Ed. Coke* in his Reports, mentions the same kind of punishment anciently for killing a swan, by suspending it by the bill, &c. Vide, *Case des Swannes*.

‡ *Howell dda* died in the year 948, after a reign of thirty-three years over *South Wales*, and eight years over all *Wales*.

The WILD CAT.

Felis pilis ex fusco flavicante, et albido variegatis vestita, cauda annulis alternatim nigris et exordide albo flavicantibus cincta. *Briffon quad. 192.*
Morton Northampt. 443.
Gesner quad. 325.
Catus sylvestris ferus vel feralis eques arborum, Klei nuad. 75.
De Buffon, Tom. vi. 20. Tab. 1. Br. Zool. 22.

NAMES.

Brit. Cath goed
Fren. Le Chat Sauvage
Span. Gato Montis
Germ. Wilde katze, Boumrutter
Dan. Vild kat

THIS animal does not differ specifically from the tame cat; the latter being originally of the same kind, but altered in color, and in some other trifling accidents, as are common to animals reclaimed from the woods and domesticated.

The cat in its savage state is three or four times as large as the house-cat; the head larger, and the face flatter. The teeth and claws, tremendous; its muscles very strong; as being formed for rapine; the tail is of a moderate length, but very thick and flat, marked with alternate bars of black and white, the end always black: the hips and hind part of the lower joints of the leg, are always black: the fur is very soft and fine: the general colour of these animals is of a yellowish white, mixed with a deep grey: these colors, though they appear at first sight confusedly blended together, yet on a close inspection will be found to be disposed like the streaks on the skin of the tiger, pointing from the back downwards, rising from a black list that runs from the head along the middle of the back to the tail.

This

This animal may be called the *British* tiger ; it is the fiercest, and most destructive beast we have ; making dreadful havoc among our poultry, lambs, and kids. It inhabits the most mountainous and woody parts of these islands, living mostly in trees, and feeding only by night. It multiplies as fast as our common cats ; and often the females of the latter will quit their domestic mates, and return home pregnant by the former.

They are taken either in traps, or by shooting : in the latter case it is very dangerous, only to wound them ! for they will attack the person who injured them, and have strength enough to be no despicable enemy. Wild cats were formerly reckoned among the beasts of chase ; as appears by a charter of *Richard* the second, to the abbot of *Peterborough*, giving him leave to hunt the hare, fox, and wild cat : and in much earlier times it was also the object of the sportsman's diversion.

Felemque minacem

Arboris in trunco longis præfigere telis.

Nemesiani Cynegeticon, L. 55.

Genus

Genus VIII. The D O G.

Species I. The D O G.

Canis, *Raii syn. quad.* 175.*Charlton ex.* 26.*Merret pinax*, 168.*Gesner quad.* 160, 249, 250.Canis domesticus. *Briffon quad.*
170.*De Buffon, Tom. v. p.* 185.*Klein quad.* 63.Canis familiaris. *Lin. syst.* 56.Canis cauda recurva. *Faun.**Suec.* 5.*Brit. Zool.* 23.

N A M E S.

Brit. Ci, *fæm.* Gast*Fren.* Le Chien*Ital.* Cane*Span.* Perro*Port.* Cam*Germ.* Hund*Dut.* Hond*Swed.* Hund*Dan.* Hund, *fæm.* Tæve

DR. Caius, an *English* physician, who flourished in the reign of queen *Elizabeth*, has left among several other tracts relating to natural history, one wrote expressly on the species of *British* dogs : they were wrote for the use of his learned friend *Gesner* ; with whom he kept a strict correspondence ; and whose death he laments in a very elegant and pathetic manner.

Besides a brief account of the variety of dogs then existing in this country, he has added a systematic table of them : his method is so judicious, that we shall make use of the same ; explain it by a brief account of each kind ; and point out those that are no longer in use among us.

SYNOPSIS of BRITISH DOGS.

I. The most generous kinds.	Dogs of chace.	Hounds	{ Terrier Harrier Blood hound
			Gaze hound Grey hound Leviner, or Lyemmer Tumbler
			Spaniel Setter Water spaniel, or finder
II. Farm Dogs.	Fowlers.	Lap Dogs.	Spaniel gentle, or comforter
			Shepherd's dog Mastiff, or ban dog
			Wappe Turnspit Dancer

The first variety is the *Terrarius* or *Terrier*, which takes its name from its subterraneous employ; being a small kind of hound, used to force the fox, or other beasts of prey, out of their holes; (and in former times) rabbits out of their burroughs into nets.

The *Leverarius*, or *Harrier*, is a species well known at present; it derives its name from its use, that of hunting the hare; but under this head may be placed { the fox hound, which is only a stronger and fleetier variety, applied to a different chace *.

* Prince *Griffith ap Conan* (who begun his reign in the year 1079) divided hunting into three kinds: the first and noblest sort was the *Helfa ddolef*, which is hunting for the melody of the cry, or notes of the

The *Sanguinarius*, or *Bloodhound*, was a dog of great use, and in high esteem with our ancestors: its employ was to recover any game that had escaped wounded from the hunter; or been killed and stole out of the forest. It was remarkable for the acuteness of its smell, tracing the lost beast by the blood it had spilt; from whence the name is derived: This species could, with the utmost certainty, discover the thief by following his footsteps, let the distance of his flight be ever so great; and through the most secret and thickest coverts: nor would it cease its pursuit, till it had taken the felon. The bloodhound was in great request on the confines of *England* and *Scotland*; where the borderers were continually preying on the herds and flocks of their neighbours.

The next division of this species of dogs, comprehends those that hunt by the eye; and whose success depends either upon the quickness of their sight, their swiftness, or their subtilty.

The *Agasæus*, or Gazehound, was the first: it chaced indifferently the fox, hare, or buck. It would select from the herd the fattest and fairest deer; pursue it by the eye; and if lost for a time, recover it again by its singular distinguishing faculty; and should the beast rejoin the herd, this dog would fix unerringly on the same. This species is now lost, or at least unknown to us.

the pack: The second sort was the *Helfa gyfartha*, or hunting when the animal stood at bay: The last kind was the *Helfa gyffredin*, i. e. common hunting; which was no more than the right any person had, who happened accidentally to come in at the death of the game, to claim a share. *Lewis's Hist. of Wales*, 56.

It must be observed that the *Agasæus* of Dr. Caius, is a very different species from the *Agasseus* of Oppian, for which it might be mistaken from the similitude of names : this he describes as a small kind of dog, peculiar to *Great-Britain* ; and then goes on with these words ;

Τυγρόν, ἀσαρκότατον λασιότρεικον, ὄμμασι νωθές.

Curvum, macilentum, hispidum oculis pigrum.

what he adds afterwards, still marks the difference more strongly ;

Ρίνεσιδ αὐτε μάλιστα πανέξοκος ἐστὶν ἀγασσεύς.

Naribus autem longè præstantissimus est agasseus.

From Oppian's whole description, it is plain he meant our Beagle *.

The next kind is the *Leporarius*, or Gre-hound. Dr. Caius informs us, that it takes its name *quod præcipui gradus sit inter canes* : the first in rank among dogs ; that it was formerly esteemed so, appears from the forest laws of king *Canute* ; who enacted, that no one under the degree of a gentleman should presume to keep a gre-hound ; and still more strongly from an old *Welsh* saying ; *Wrth ei Walch, ei Farch, a'i Filgi, yr adwaenir Bonbeddig* : Which signifies, that you may know a gentleman by his hawk, his horse and his gre-hound.

* Opp. Cyneget. lib. i. lin. 473. 476.

Nemesianus also celebrates our dogs.

Divisa Britannia mittit
Veloces, nostrique orbis venantibus aptos.

Froissart relates a fact not much to the credit of the fidelity of this species: when that unhappy prince *Richard* the second was taken in *Flint* castle, his favorite gre-hound immediately deserted him, and fawned on his rival *Bolingbroke*; as if he understood, and foresaw the misfortunes of the former*. The story is so singular, that we give it in the note in the words of the historian.

The third species is the *Levinarius*, or *Lorarius*; The *Leviner* or *Lyemmer*: the first name is derived from the lightness of the kind; the other from the old word *Lyemme*, a thong: this species being used to be led in a thong, and slipped at the game. Our author says, that this dog was a kind that hunted both by scent and sight; and in the form of its body ob-

* Le Roy *Richard* auoit vn Leurier (lequel on nommoit Math) tresbeau Leurier outre mesure: & ne vouloit ce chien congnoistre nul homme, fors le Roy: &, quand le Roy vouloit cheuaucher, celuy, qui l'auoit en garde, le laissoit aller: & ce Leurier venoit tantost deuers le Roy, le festoyer: & luy mettoit, incontinent qu'il estoit échapé, les deux piés sur les espaules: et adoncques auint, que, le Roy & le Comte d'Erby parlans ensemble en la place de la court dudit chasteau, & estans leurs cheuaux tous sellés (car ils vouloyent monter à cheual) ce Leurier, nommé Math (qui estoit coustumier de faire au Roy ce, que dit est) laissa le Roy: & s'en vint au Duc de Lanclastre, & luy fit toutes telles contenances, que par-avant il auoit accoustumé de faire au Roy: & luy assit les deux piés sur le col: & le commença moult grandement à cherir. Le Duc de Lanclastre (qui point ne congnoissoit ce Leurier) demanda au Roy, Et que veut ce Leurier faire? Cousin (dît le Roy) ce vous est vne grand' signifiante, & à moy petite. Coment (dît le Duc) l'entendez vous? Je l'enten, dît le Roy. Le Leurier vous festoye, & recueult aujourd'hui, comme Roy d'Angleterre, que vous ferez, & i'en seray déposé: et le Leurier en a congnoissance naturelle. Si le tenez delez vous car il vous suiura, & m'elongnera. Le Duc de Lanclastre entendit bien ceste parolle: & fit chere au Leurier: lequel oncques depuis ne voulut suiure Richard de Bordeaux: mais suiuit le Duc de Lanclastre. *Edition de Lyon, 1559.*

served a medium between the hound, and the gre-hound: This probably is the kind now known to us by the name of the *Irish* gre-hound.

The *Vertagus*, or Tumbler, is a fourth species; which took its prey by mere subtilty, depending neither on the sagacity of its nose, nor its swiftness: if it came into a warren, it neither barked, or ran on the rabbits; but by a seeming neglect of them, or attention to something, deceived the object till it got within reach, so as to take it by a sudden spring. This dog was less than the hound; more scraggy, and had prickt up ears; and by Dr. *Caius*'s description seems to answer to the modern lurcher.

The third division of the more generous dogs, comprehends those which were used in fowling; first, the *Hispaniolus* or spaniel: from the name it may be supposed, that we were indebted to *Spain* for this breed: there were two varieties of this kind, the first used in hawking, to spring the game, which are the same with our starters.

The other variety was used only for the net, and was called *Index*, or the setter; a kind well known at present. This kingdom has long been remarkable for producing excellent dogs of this sort, particular care having been taken to preserve the breed in the utmost purity. They are still distinguished by the name of *English* spaniels; so that notwithstanding the derivation of the name, it is probable they are natives of *Great-Britain*. The Pointer, which is a dog of foreign extraction, was unknown to our ancestors.

The *Aquaticus*, or Fynder, was another species used in fowling; was the same as our water spaniel;

and was used to find or recover the game that was shot.

The *Melitæus*, or *Fotor*; the spaniel gentle or comforter of Dr. *Caius* (the modern lap dog) was the last of this division. The *Maltese* little dogs were as much esteemed by the fine ladies of past times, as those of *Bolegna* are among the modern. Old *Hollingshed* is ridiculously severe on the fair of his days, for their excessive passion for these little animals; which is sufficient to prove it was in his time * a novelty.

The second grand division of dogs comprehends the *Rustici*; or those that were used in the country.

The first species is the *Pastoralis*, or shepherd's dog; which is the same that is used at present, either in guarding our flocks, or in driving herds of cattle. This kind is so well trained for those purposes, as to attend to every part of the herd be it ever so large; confine them to the road, and force in every straggler without doing it the least injury.

The next is the *Villaticus*, or *Catenarius*; the *mastiff* or *band* dog; a species of great size and strength, and a very loud barker. *Manwood* says †, it derives its name from *mase thefese*, being supposed to frighten away robbers by its tremendous voice. *Caius* tells us that three of these were reckoned a match for a bear; and four for a lion: but from an experiment made in the Tower by *James* the first, that noble quadruped was found an unequal match to only three. Two of the dogs were disabled in the combat, but the third forced the lion to seek for safety by flight ‡. The

* In the reign of Queen *Elizabeth*.

† *Manwood's Forest Law*.

‡ *Stow's Annales*, 1427.

English bull dog seems to belong to this species ; and probably is the dog our author mentions under the title of *Laniarius*. *Great-Britain* was so noted for its mastives, that the *Roman* Emperors appointed an officer in this island with the title of *Procurator Cyneгии* *, whose sole business was to breed, and transmit from hence to the *Amphitheater*, such as would prove equal to the combats of the place,

Magnaue taurorum fracturi colla *Britanni* †.

Gratius speaks in high terms of the excellency of the *British* dogs,

Atque ipsos libeat penetrare *Britannos* ?

O quanta est merces et quantum impendia supra !

Si non ad speciem mentiturosque decores

Protinus : hæc una est catulis jactura *Britannis*.

Ad magnum cum venit opus, promendaque virtus,

Et vocat extremo præceps discrimine mavors,

Non tunc egregios tantum admirere *Molossos* ‡.

Strabo tells us, that the mastives of *Britain* were trained for war, and were used by the *Gauls* in their battles || : and it is certain a well-trained mastiff might be of considerable use in distressing such half-armed and irregular combatants as the adversaries of the *Gauls* seem generally to have been before the *Romans* conquered them.

The last division is that of the *Degeneres*, or *Curs*.

* *Camd. Brit. in Hampshire.*

† *Claudian de laude Stilichonis. Lib. iii. Lin. 301.*

‡ *Gratii Cynegeticon. Lin. 175.*

|| *Strabo. Lib. iv.*

The first of these was the *Wappe*, a name derived from its note : its only use was to alarm the family, by barking, if any person approached the house. Of this class was the *Versator*, or turnspit ; and lastly the *Saltator*, or dancing dog ; or such as was taught variety of tricks, and carried about by idle people as a shew. These *Degeneres* were of no certain shape, being mongrels, or mixtures of all kinds of dogs.

We should now, according to our plan, after enumerating the several varieties of *British* dogs, give its general natural history, but since *Linnaeus* has already performed it to our hand, we shall adopt his sense, translating his very words (wherever we may) with literal exactness.

“ The dogs eats flesh, and farinaceous vegetables,
“ but not greens : its stomach digests bones : it uses
“ the tops of grass as a vomit. It voids its excre-
“ ments on a stone : the album græcum is one of the
“ greatest encouragers of putrefaction. It laps up
“ its drink with its tongue : it voids its urine sideways,
“ by lifting up one of its hind legs ; and is most diu-
“ retic in the company of a strange dog. *Odorat*
“ *anum alterius* : its scent is most exquisite, when its
“ nose is moist : it treads lightly on its toes ; scarce
“ ever sweats ; but when hot lolls out its tongue.
“ It generally walks frequently round the place it in-
“ tends to lye down on : its sense of hearing is very
“ quick when asleep : it dreams. *Procis rixantibus*
“ *crudelis* : *catulit cum variis* : *mordet illa illos* : *cobæret*
“ *copula junctus* : it goes with young sixty-three
“ days ; and commonly brings from four to eight at
“ a time : the male puppies resemble the dog, the
“ female

“ female the bitch. It is the most faithful of all
 “ animals : is very docible : hates strange dogs :
 “ will snap at a stone thrown at it : will howl at
 “ certain musical notes : all (except the *S. American*
 “ kind) will bark at strangers : dogs are rejected by
 “ the *Makometans*.”

Species II. The F O X.

Vulpes. Raii syn. quad. 177.

Morton's Northampt. 444.

Meyer's an. i. Tab. 36.

Canis fulvus, pilis cinereis inter-
mixtis. Brisson quad. 173.

De Buffon. Tom. vii. 75. Tab. 6.

Gesner quad. 956.

Vulpes auctorum. Hasselquist
Itin. 191.

Canis vulpes. Lin. syst. 59.

Canis cauda recta apice albo,
Faun. Suec. 7.

Vulpes vulgaris. Klein quad. 73.
Br. Zool. 28.

N A M E S.

<i>Brit.</i>	<i>Llwynog, fœm. Llwynoges</i>	<i>Germ.</i>	<i>Fuchs</i>
<i>Fren.</i>	<i>Le Renard</i>	<i>Dut.</i>	<i>Vos</i>
<i>Ital.</i>	<i>Volpe</i>	<i>Swed.</i>	<i>Raff</i>
<i>Span.</i>	<i>Raposa</i>	<i>Dan.</i>	<i>Rev</i>
<i>Port.</i>	<i>Rapoza</i>		

THE fox is a crafty, lively, and libidinous animal, it breeds only once in a year (except some accident befalls its first litter;) and brings four or five young, which, like puppies, are born blind. It has been a common received opinion, that this animal would produce with the dog kind, but some late experiments prove it to be erroneous, and convince us that this animal will mix only with its own species *.

* We owe the detection of this error to *M. de Buffon*, who gives the following account of the experiment: *J'en fis garder trois pendant deux ans une femelle & deux mâles: on tenta inutilement de les faire accoupler avec des chiennes; quoiqu'ils n'eussent jamais vu de femelles de leur*

It sleeps much in the day, but is in motion the whole night in search of prey. It will feed on flesh of any kind, but its favorite food is lambs, rabbits, hares, poultry, and feathered game. It will, when urged by hunger, eat carrots and insects; and those that live near the sea-coasts, will, for want of other food, eat crabs, shrimps, or shell fish. In *France* and *Italy*, it does incredible damage in the vineyards, by feeding on the grapes, of which it is very fond. The fox is a great destroyer of rats, and field mice; and like the cat, will play with them a considerable time, before it it puts them to death.

When the fox has acquired a larger prey than it can devour at once, it never begins to feed till the rest is secured, which it does with great address. It digs holes in different places, returns to the spot where it had left the booty; and (supposing a whole flock of poultry to have been its prey) will bring them one by one, and thrust them in with its nose, and then conceal them by ramming the loose earth on them, till the calls of hunger incite him to pay them another visit.

Of all animals the fox has the most significant eye, by which it expresses every passion of love, fear, hatred, &c. It is remarkably playful, but like all other savage creatures half reclaimed, will on the least offence bite those it is most familiar with.

leur espece, et qu'ils parussent pressé du besoin de jouir, il ne pûrent s'y déterminer, ils refuserent toutes les chiennes, mais de qu'on leur présenta leur femelle légitime, ils la convrirent, quoiqu'enchainés et elle produit quatre petits. Hist. Naturelle, vii. 81. The same experiments were tried with a bitch and a male fox; and with a dog and female wolf, but with the same effect. *Vide vol. v. 210, 212.*

It is a great admirer of its bushy tail, with which it frequently amuses and exercises itself by running in circles to catch it: and in cold weather wraps it round its nose.

The smell of this animal in general is very strong, but that of the urine is most remarkably fætid. This seems so offensive even to itself, that it will take the trouble of digging a hole in the ground, stretching its body at full length over it, and there, after depositing its water, cover it over with the earth, as the cat does its dung. The smell is so offensive, that it has often proved the means of the fox's escape from the dogs, who have so strong an aversion to the filthy *effluvia*, as to avoid encountering the animal it came from. It is said that the fox makes use of its urine as an expedient to force the cleanly badger from its habitation: whether that is the means is rather doubtful; but that the fox makes use of the badger's hole is certain: not through want of ability to form its own retreat; but to save itself some trouble: for after the expulsion of the first inhabitant, the fox improves, as well as enlarges it considerably, adding several chambers; and providently making several entrances to secure a retreat from every quarter. In warm weather it will quit its habitation for the sake of basking in the sun, or to enjoy the fresh air; but then it rarely lies exposed, but chuses some thick brake, and generally of gorse, that it may rest secure from surprize. Crows, magpies, and other birds, who consider the fox as their common enemy, will often, by their notes of anger, point out its retreat.

This animal is common in all parts of *Great Britain*,

[Faint handwritten text, possibly bleed-through from the reverse side.]

The WOLF.



tain, and so well known as not to require a description. The skin is furnished with a soft and warm fur, which in many parts of *Europe* is used to make muffs and line cloaths. Vast numbers are taken in *Le Vallois*, and the *Alpine* parts of *Switzerland*. At *Lausanne* there are furriers who are in possession of between two and three thousand skins, all taken in one winter.

There are three varieties of foxes found in the mountainous parts of the islands, which differ a little in form, but not in color, from each other. These are distinguished in *Wales*, by as many different names. The *Milgi* or *gre-hound fox*, is the largest, tallest, and boldest; and will attack a grown sheep or wether: the *mastiff fox* is less, but more strongly built: the *Corgi*, or *cur fox*, is the least, and lurks about hedges, out-houses, &c. and is the most pernicious of the three to the feathered tribe. The numbers of these animals in general would soon become intolerable, if they were not proscribed, having a certain reward set on their heads.

In this place we should introduce the wolf, a congenerous animal, if we had not fortunately a just right to omit it in a history of *British* quadrupeds. We cannot for certain say when it was extirpated in *Scotland*, but it was, as appears by *Hollingshed* *, very noisome to the flocks in 1577; however, we are told that none are to be found there at present, so have reason to think *M. de Buffon* was misinformed as to that particular †.

It has been a received opinion, that the other parts of these kingdoms were in early times delivered from

* *Disc. Scot.* 10.

† *Tom.* vii.

this pest by the care of king *Edgar*. In *England* he attempted to effect it by commuting the punishments for certain crimes into the acceptance of a number of wolves tongues from each criminal : in *Wales* by converting the tax of gold and silver into an annual tribute of 300 wolves heads. Notwithstanding these his endeavours, and the assertions of some authors, his scheme proved abortive. We find that some centuries after the reign of that *Saxon* monarch, these animals were again increased to such a degree, as to become the object of the royal attention ; accordingly *Edward* the first issued out his mandate to *Peter Corbet* to superintend and assist in the destruction of them in the several counties of *Gloucester*, *Worcester*, *Hereford*, *Salop*, and *Stafford* * : and in the adjacent county of *Derby*, as *Camden*, p. 902, informs us, certain persons at *Wormhill* held their lands by the duty of hunting and taking the wolves that infested the country, whence they were stiled *Wolve hunt*. To look back into the *Saxon* times we find that in *Athelstan's* reign wolves abounded so in *Yorkshire*, that a retreat was built at *Flixton* in that county, to defend passengers from the wolves, that they should not be devoured by them † : and such ravages did those animals make during winter, particularly *January* when the cold was severest, that our *Saxon* ancestors

* *Pro Petro Corbet, de Lupis Capiendis.*

Rex, omnibus Ballivis, &c. Sciatis quod injunximus dilecto et fidele nostro Petro Corbet quod in omnibus forestis et parcis et aliis locis infra comitatus nostros Gloucester, Wygorn, Hereford, Salop, et Stafford, in quibus lupi poterunt inveniri lupos cum hominibus canibus et ingeniis suis capiat et destruat modis omnibus quibus viderit expedire.

Et ideo vobis mandamus quod eidem intendentes et auxiliantes estis. Teste Rege apud Westm. 14 Maii A. D. 1281. Rymer, vol. i. pars 2. p. 192.

† *Camden's Brit. 902.*

dis-

distinguished that month by the title of *wolf-moneth* *. They also called an outlaw *Wolfsbed* †, as being out of the protection of the law, proscribed, and as liable to be killed as that destructive beast.

They infested *Ireland* many centuries after their extinction in *England*, for there are accounts of some being found there as late as the year 1710. The last presentment for killing of wolves being made in the county of *Cork* about that time.

The Bear, another voracious beast, was once an inhabitant of this island, as appears from different authorities : to begin with the more ancient, *Martial* informs us, that the *Caledonian* bears were used to heighten the torments of the unhappy sufferers on the crosses.

Nuda *Caledonio* sic pectora præbuit urso
Non falsâ pendens in cruce *Laureolus* ‡.

And *Plutarch* relates, that Bears were transported from *Britain* to *Rome*, where they were much admired §. Mr. *Llwyd* || also discovered in some old *Welsh* MS. relating to hunting, that this animal was reckoned among our beasts of chase, and that its flesh was held in the same esteem with that of the hare or boar. Many places in *Wales* still retain the name of *Pennarth*, or the bear's head, another evidence of their existence in our country. Long after their extirpation out of this kingdom, these animals were imported for an end, that does no credit to the manners of the times : bear-

* *Verstegan's Antiq.* 59.

† *Knyghton*, 2356.

‡ *Martial. Lib. Spect. ep.* 7.

§ *Plutarch*, as cited by *Camden*, p. 1227. || *Raii syn. quad.* 214.

baiting

baiting in all its cruelty was a favourite pastime with our ancestors. We find it in queen *Elizabeth's* days exhibited, (tempered with other merry disports) as an entertainment for an ambassador *, and again among the various amusements prepared for her majesty at the princely *Kenelworth*.

Genus IX. The BADGER.

Species I. The BADGER.

Badger, Brock, Gray, Pate,

Taxus five *Meles*. *Raii syn.*

quad. 185

Meyer's an. i. Tab. 31.

Sib. Scot. 11.

Meles pilis ex fordide albo et nigro variegatis vestita, capite tæniis alternatim albis et nigris variegato. *Briffon quad.*

183

De Buffon, Tom. viii. Tab. 7.

P. 104.

Gesner quad. 686.

Ursus meles. *Ursus* cauda concolore, corpore supra cinereo, subtus nigro, fascia longitudinali per oculos auresque nigra. *Lin. syst.* 70.

Coati cauda brevi. *Klein quad.* 73.

Meles unguibus anticis longissimis. *Faun. Suec.* 20.

Br. Zool. 30.

N A M E S.

Brit. Pryf Llwyd, Pryf penfith

Fren. Le Taillon, Le Blaireau

Ital. Tasso

Span. Texon

Port. Texugo

Germ. Tachs

Dut. Varkens Das

Swed. Graf Suin

Dan. Grevlin, Brok

THOUGH the badger is a beast of great strength, and is furnished with strong teeth, as if formed for rapine, yet it is found to be an animal perfectly inoffensive: roots, fruits, grass, insects, and

* *Stow*, 1562.

frogs are its food; it is charged with destroying lambs and rabbits; but, on enquiry, there seems to be no other reason to think it a beast of prey, than from the analogy there is between its teeth and those of carnivorous animals. Nature denied the badger the speed and activity requisite to escape its enemies, so hath supplied it with such weapons of offence that scarce any creature would hazard the attacking it; few animals defend themselves better, or bite harder: when pursued, they soon come to bay, and fight with great obstinacy. It is an indolent animal, and sleeps much, for which reason it is always found very fat. It burroughs under ground, like the fox; and forms several different apartments, though with only one entrance. It confines itself to its hole during the whole day, feeding only at night: it is so cleanly an animal as never to obey the calls of nature in its apartments; but goes out for that purpose: it breeds only once in a year, and brings four or five at a time.

The usual length of the badger, is two feet four inches, exclusive of the tail, which is but four inches long. The eyes are very small: the ears short and rounded: the neck short: the whole shape of the body clumsy and thick; which being covered with long coarse hairs like bristles, makes it appear still more awkward.

The nose, chin, lower sides of the cheeks, and the middle of the forehead, are white: each ear and eye is inclosed in a pyramidal bed of black; the base of which incloses the former; the point extends beyond the eye to the nose: the hairs on the body are of three
F colors;

colors; the bottoms of a dirty yellowish white; the middle black; the ends ash-colored, or grey; from whence the proverb, As grey as a badger. The hairs which cover the tail are very long, and of the same colors with those of the body: the throat and under parts of the body are black: the legs and feet of the same color, are very short, strong and thick: each foot is divided into five toes; those on the fore-feet are armed with long claws, well adapted for digging; in walking the badger treads on its whole heel, like the bear; which brings the belly very near the ground. Immediately below the tail, between that and the anus, is a narrow transverse orifice, which opens into a kind of pouch, from whence exudes a white substance of a very fetid smell; this seems peculiar to the badger and the *Hyæna*.

Naturalists once distinguished the badger, by the names of the swine-badger, and the dog-badger; from the supposed resemblance of their heads to those animals, and so divided them into two species: but the most accurate observers have been able to discover only one kind; that, whose head and nose resemble those of the dog.

Badgers are hunted in the winter nights, for their flesh and their skin: the hind quarters may be made into hams, not inferior in goodness to the best bacon; the skin, when dressed with the hair on, is used for pistol furniture; the hair is frequently used for making brushes to soften shades in painting; which are called sweetening tools.

Genus

Genus X. The O T T E R.

Species I. The O T T E R.

- | | |
|---|---|
| Le Loutre, <i>Belon</i> 26. pl. 27. | <i>Lutra castanei coloris.</i> <i>Briffon</i> |
| <i>Lutra.</i> The otter. <i>Raii syn.</i> | <i>quad.</i> 201. |
| <i>quad.</i> 187. | <i>De Buffon, Tom. vii. 134. Tab. 11.</i> |
| <i>Grew's mus.</i> 16. | <i>Mustela lutra.</i> <i>Lin. syst.</i> 66. |
| <i>Morton's Northamp.</i> 444. | <i>Pontop. Norw.</i> 2. 27. |
| <i>Sib. Scot.</i> 10. | <i>Lutra digitis omnibus æqualibus.</i> |
| <i>Gesner quad.</i> 687. | <i>Faun. Suec.</i> 12. |
| | <i>Br. Zol.</i> 32. |

N A M E S.

<i>Brit.</i>	Dyfrgi	<i>Germ.</i>	Otter, Fisch Otter
<i>Fren.</i>	Le Loutre	<i>Dut.</i>	Otter
<i>Ital.</i>	Lodra, Lodria, Lontra.	<i>Swed.</i>	Utter
<i>Span.</i>	Nutria	<i>Dan.</i>	Odder
<i>Port.</i>			

THE usual length of this animal is three feet three inches, including the tail, which is sixteen inches long.

The head and nose are broad and flat, the neck short, and equal in thickness to the head: the body long: the tail broad at the base, tapers off to a point at the end, and is the whole way compressed horizontally. The eyes are very small, and placed nearer the nose than is usual in quadrupeds: the ears extremely short, and their orifice narrow: the opening of the mouth is small, the lips muscular, and capable of being brought very close together: the nose and corners of the mouth are furnished with very long whiskers; so that the whole appearance of the otter is something terrible. The legs are very short, but

remarkably strong, broad, and muscular; the joints articulated so loosely, that the animal is capable of turning them quite back, and bringing them on a line with the body, so as to perform the office of fins. Each foot is furnished with five toes, connected by strong broad webs, like those of water fowl. Thus nature in every article has had attention to the way of life she had allotted to an animal, whose food is fish; and whose haunts must necessarily be about waters.

The color of the otter is entirely a deep brown, except two small spots of white on each side the nose, and another under the chin. The skin of this animal is very valuable, if killed in the winter; and is greatly used in cold countries for lining cloaths: but in *England* it is only used for covers for pistol furniture. The best furs of this kind come from the northern part of *Europe*, and *America*.

The otter swims and dives with great celerity, and is very destructive to fish: in rivers it is always observed to swim against the stream, to meet its prey. In very hard weather, when its natural sort of food fails, it will kill lambs and poultry. Its flesh is excessively rank and fishy. The *Romish* church permits the use of it on maigre-days. In the kitchen of the *Carthusian* convent near *Dijon*, we saw one preparing for the dinner of the religious of that rigid order, who, by their rules, are prohibited during their whole lives, the eating of flesh.

It shews great sagacity in forming its habitation: it burroughs under ground on the banks of some river or lake; and always makes the entrance of its hole under water; works upwards to the surface of the earth,

earth, and there makes a minute orifice for the admission of air : it is further observed, that this animal, the more effectually to conceal its retreat, contrives to make even this little air hole in the middle of some thick bush.

The otter brings four or five young at a time : as it frequents ponds near gentlemen's houses, there have been instances of litters being found in cellars, sinks, and other drains.

Sir Robert Sibbald, in his history of *Fife*, p. 49, mentions a *Sea Otter*, which he says differs from the common sort, in being larger, and having a rougher coat ; but probably it does not differ specifically from the kind that frequents fresh waters. Did not *Aristotle* place his *Latax* * among the animals which seek their food among fresh waters, we should imagine we had here recovered this lost animal, which he mentions immediately after the otter, and describes as being broader. Though this must remain a doubt, we may with greater confidence suppose the sea otter to be the *Loup marin* of *Belon* †, which from a hearsay account, he says, is found on the *English* coasts.

* Τοιαύτα δὲ εἰναι ὃ τε καλεῖται κατὰρ, καὶ το σαθέριον καὶ το σαλουργιον, καὶ ενυδρίς, καὶ ἡ καλεῖται λαλαξ. εἰναι δὲ τὸ πλάτυλερον ενυδρίδος, καὶ οδοντίας εχει ἰσχυρὰς ἐξίστα γὰρ νυκτὸς πολλακίς, τὰς περὶ τὸν πόταμον κερκίδας ἐκλεμνεί τοις οδοσίον. δακνεί δὲ τὴν ἀνθρώπου καὶ ἡ ενυδρίς, καὶ ἐκ ἀφίησιν, ὡς λεγούσι, μέχρις ἀν ὅσον ψοφὸν ἀκυσή. το δὲ τριχωμα εχει ἡ λαλαξ σκληρόν, καὶ το εἶδος μετὰ τὴν τῆς φωνῆς τριχωμάτος, καὶ τῆς ελαφρ. *Aristot. Hist. Anim.* p. 905. A.

Sunt etiam in hoc genere (sc. animalium quadrupedum quæ viclum ex lacubus et fluviis petunt) fiber, satherium, satyrium, lutris, latax, quæ latior lutre est, dentesque habet robustos, quippe quæ noctu plerumque agrediens, virgulta proxima suis dentibus, ut ferro præcidat. Lutris etiam hominem mordet, nec desistit (ut ferunt) nisi fracti ossis crepitum senserit. Latæci pilus durus, specie inter pilum vituli marini et cervi.

† *Belon de la Nature des Poisons*, p. 28. pl. 29.

He compares its form to that of a wolf, and says, it feeds rather on fish than sheep. That circumstance alone makes it probable, that *Sibbald's* animal was intended, it being well known, the otter declines flesh when it can get fish. Little stress ought to be laid on the name, or comparison of it to a wolf; this variety being of a size so superior to the common, and its hair so much more shaggy, a common observer might readily catch the idea of the more terrible beast, and adapt his comparison to it.

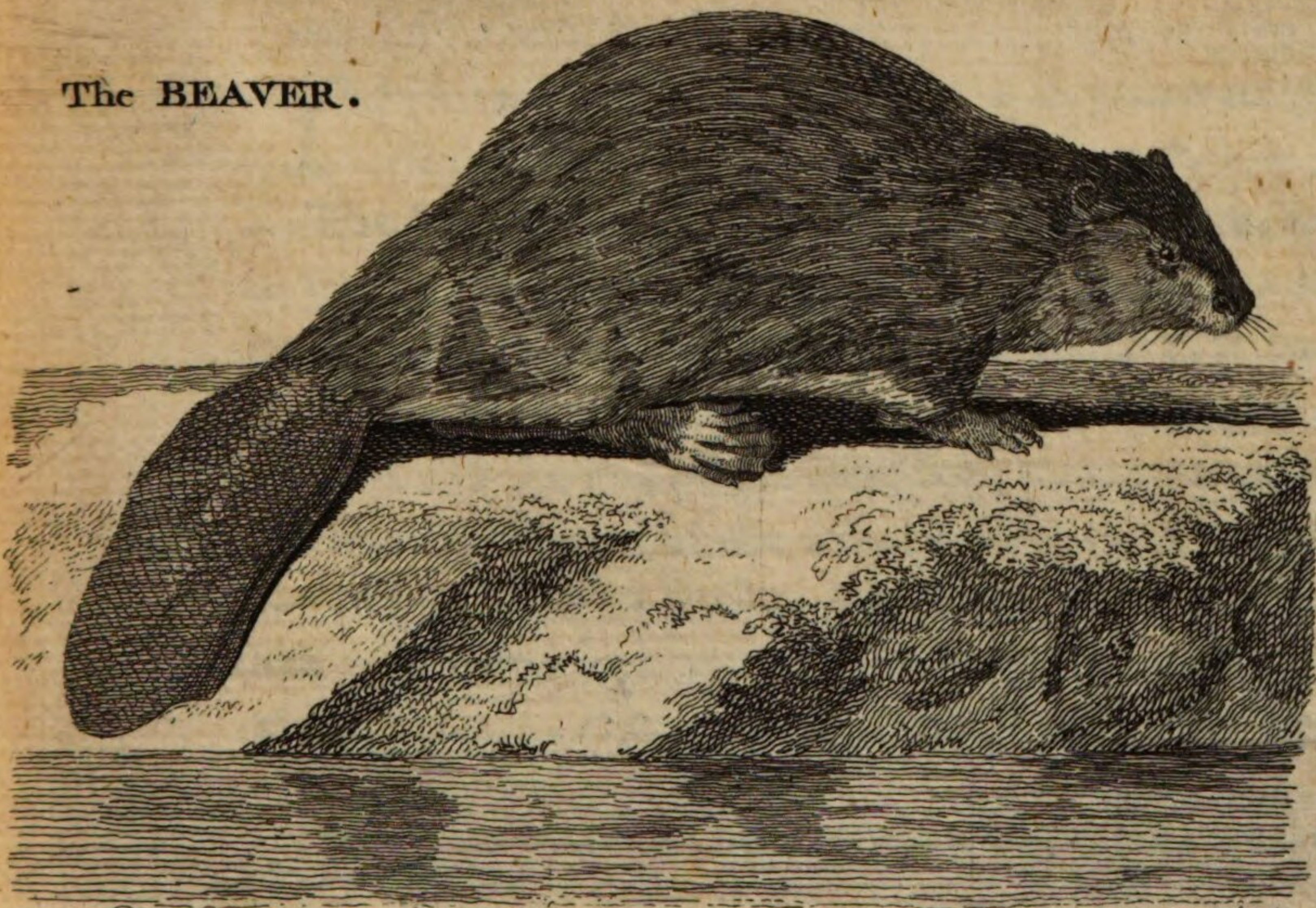
Beavers, which are also amphibious animals, were formerly found in *Great Britain*; but the breed has been extirpated many ages ago; the latest accounts we have of them, is in *Giraldus Cambrensis* *, who travelled through *Wales* in 1188: he gives a brief history of their manners; and adds, that in his time they were found only in the river *Teivi*; two or three lakes in that principality, still bear the name of *Llyn yr afangc* †, or the beaver lake; which is a further proof, that these animals were found in different parts of it. But we imagine they must have been very scarce even in earlier times; for by the laws of *Hoel dda*, the price of a beaver's skin (*Croen Lloftlydan* ‡) was fixed at one hundred and twenty pence, a great sum in those days.

* *Girald. Camb. Itin.* 178, 179. † *Raii syn. quad.* 213.

‡ *Lloftlydan*, that is, the broad tailed animal. *Leges Wallicæ*, 261.



The MUSIMON. *P. 26.*



The BEAVER.

De Sève Del.

Mazell fec.

Genus I. The S E A L.

Species I. The S E A L.

- | | |
|---------------------------------------|--|
| Le Veau marin, ou loup de Mer. | Kassigiak. <i>Crantz's Hist. Greenl.</i> |
| <i>Belon</i> 25. Pl. 26. | i. 123. |
| Seal, Seoile, or Sea-calf. Phoca, | Le Phoque, <i>de Buffon.</i> |
| feu vitulus marinus. <i>Raii syn.</i> | <i>Horr. Icel.</i> 88. |
| <i>quad.</i> 189. | <i>Pontop. Norw.</i> ii. 125, |
| Sea-calf. <i>Phil. transact.</i> No. | <i>Briffon quad.</i> 162. |
| 469. Tab. 1. | Phoca vitulina. <i>Lin. syst.</i> 56. |
| <i>Smith's Kerry</i> , 84, 364. | Phoca. <i>Klein quad.</i> 93. |
| <i>Borlase's Cornw.</i> 284. | Phoca dentibus caninis tectis. |
| <i>Worm. muse.</i> 289. | <i>Faun. Suec.</i> 4. |
| | <i>Br. Zool.</i> 34. |

N A M E S.

<i>Brit.</i>	Moelrhon	<i>Germ.</i>	Meer-wolff, Meer-hund
<i>Fren.</i>	Le Veau marin	<i>Dut.</i>	Zee hond
<i>Ital.</i>	Vechio marino	<i>Swed.</i>	Sial
<i>Span.</i>	Lobo marino	<i>Dan.</i>	Sæl hund

THE common length of the seals taken on the *British* coasts, is from five to six feet *.

The subject that we took our description from, was a young one; so allowance must be made for the proportions of the measurements of those that have attained their full size. Its length from the end of the nose, to the end of the hind feet, was two feet nine inches: to the end of the tail, two feet three inches: the head was seven inches long: the tail two and a half: the fore legs were deeply immersed in the skin of the body; what appeared out, was only eight

* Sir R. Sibbald says, that on the coast of *Angus*, some are found as large as oxen.

inches long: the breadth of the fore feet, when extended, was three inches and a half: the hind legs were placed in such a manner as to point directly backwards; and were ten inches long: each hind foot, when extended, was nine inches and a half broad: every foot was divided into five toes; and each of those connected by a strong and broad web, covered on both sides with short hair.

The toes were furnished with strong claws, well adapted to assist the animal in climbing the rocks it basked on: the claws on the hind feet were about an inch long, slender, and strait; except at the ends, which were a little incurvated.

The circumference of the body in the thickest part, which was near the shoulders, was one foot ten inches; but near the hind legs, where it was narrowest, it measured only twelve inches.

The head and nose were broad and flat, like those of the otter; the neck short and thick; the eyes large and black; it had no external ears, but in lieu of them, two small orifices: the nostrils were oblong: on each side the nose were several long stiff hairs; and above each eye, were a few of the same kind.

The form of the tongue of this animal is so singular, that were other notes wanting, that alone would distinguish it from all other quadrupeds; being forked, or slit at the end.

The whole animal was covered with short hair, very closely set together: the color of that on the head and feet was dusky: on the body dusky, spotted irregularly with white: on the back the dusky color predominated; on the belly the white: but
seals

seals vary greatly in their marks and colors, and some have been found * entirely white. One that was taken near *Chester*, in *May* 1766, had on its first capture, the body naked like the skin of a porpese; and only the head and a small spot beneath each fore leg, hairy; it was kept alive some time; but before it died, hair began to grow over the whole body †.

The seal is common on most of the rocky shores of *Great Britain* and *Ireland*, especially on the northern coasts: in *Wales* it frequents the coasts of *Caernarvonshire*, and *Anglesey*.

We must acknowledge the obligations we are under to the reverend Mr. *Farrington* of *Dinas*, in the former county, for several learned communications; but in particular for the natural history of this animal, which we shall give the public in his own words.

‘ The seals are natives of our coasts; and are
 ‘ found most frequently between *Lleyn* in *Caernar-*
 ‘ *vonshire*, and the northern parts of *Anglesey*: they are
 ‘ seen often towards *Carrig y moelrhon*, to the west of
 ‘ *Bardsey*, or *ynys Enlli*; and the *Skerries*, com-
 ‘ monly called in the *British* language *Ynys y moel-*
 ‘ *rhoniad*, or seal island. The *Latin* name of this am-
 ‘ phibious animal is *Phoca*: the vulgar name is sea
 ‘ calf; and on that account, the male is called the
 ‘ bull, and the female the cow; but the *Celtic* appel-
 ‘ lative is *Moelrhon*, from the word *Moel*, bald, or
 ‘ without ears, and *Rhon*, a spear or lance.

* In the *Ashmolean Museum* at *Oxford*, is a good picture of two white seals.

† *Vide*, The figure published in the additional plates of the folio edition of this work.

“ They are excellent swimmers, and ready divers,
“ and are very bold when in the sea; swimming care-
“ lessly enough about boats: their dens or lodgments,
“ are in hollow rocks, or caverns, near the sea; but
“ out of the reach of the tide: in the summer they
“ will come out of the water, to bask or sleep in the
“ sun, on the top of large stones, or shivers of rocks:
“ and that is the opportunity our countrymen take
“ of shooting them; if they chance to escape, they
“ hasten towards their proper element, flinging stones
“ and dirt behind them, as they scramble along; at
“ the same time expressing their fears by piteous
“ moans; but if they happen to be overtaken, they
“ will make a vigorous defence with their feet and
“ teeth, till they are killed. They are taken for the
“ sake of their skins, and for the oyl their fat yields:
“ the former sell for four shillings, or four and six-
“ pence a piece; which, when dressed, are very useful
“ in covering trunks, making waistcoats, shot
“ pouches, and several other conveniencies. The
“ flesh of these animals, and even of porpeses, for-
“ merly found a place at the tables of the great; as
“ appears from the bill of fare of that vast feast that
“ archbishop *Nevell* gave in the reign of *Edward* the
“ fourth, in which is seen, that several were provided
“ on the occasion *. They couple about *April*, on
“ large rocks, or small islands, not remote from the
“ shore; and bring forth in those vast caverns that are
“ frequent on our coasts; they commonly bring two
“ at a time, which in their infant state, are covered
“ with a whitish down, or woolly substance.’

The natural history of this animal, may be further elucidated, by the following extracts from a letter of the reverend Dr. *William Borlase*, dated *October* the 24th, 1763.

‘ The seals are seen in the greatest plenty on the shores of *Cornwall*, in the months of *May*, *June*, and *July*.

‘ They are of different sizes, some as large as a moderate cow, and from that downwards to a small calf.

‘ They feed on most sorts of fish which they can master, and are seen searching for their prey near shore; where the whistling fish, wraws, and polacks resort.

‘ They are very swift in their proper depth of water, dive like a shot, and in a trice rise at fifty yards distance; so that weaker fishes cannot avoid their tyranny, except in shallow water: a person of the parish of *Sennan*, saw not long since a seal in pursuit of a mullet (that strong and swift fish:) the seal turned it to and fro’ in deep water, as a greyhound does a hare: the mullet at last found it had no way to escape, but by running into shoal water: the seal pursued; and the former to get more surely out of danger, threw itself on its side, by which means it darted into shoaler water than it could have swam in with the depth of its paunch and fins, and so escaped.

‘ The seal brings her young about the beginning of autumn; our fishermen have seen two sucking their dam at the same time, as she stood in the sea in a perpendicular position.

‘ Their

‘ Their head in swimming is always above water,
 ‘ more so than that of a dog.

‘ They sleep on rocks furrounded by the sea, or on
 ‘ the less accessible parts of our cliffs, left dry by the
 ‘ ebb of the tide; and if disturbed by any thing, take
 ‘ care to tumble over the rocks into the sea. They
 ‘ are extremely watchful, and never sleep long with-
 ‘ out moving; seldom longer than a minute; then
 ‘ raise their heads, and if they hear or see nothing
 ‘ more than ordinary, lie down again, and so on, rais-
 ‘ ing their heads a little, and reclining them alter-
 ‘ nately, in about a minute’s time. Nature seems
 ‘ to have given them this precaution, as being un-
 ‘ provided with auricles, or external ears; and conse-
 ‘ quently not hearing very quick, nor from any great
 ‘ distance.’

In Sir R. Sibbald’s history of *Scotland*, we find an account of another species of the seal kind, which is copied from *Boethius*. The animal he mentions is the sea-horse, or *Morse*: as this vast creature is found in the *Norwegian* seas, we think it not improbable but that it may have appeared on the *Scottish* coasts; but having no better authority for it, than what is above-mentioned, we dare not give it a place in a *British Zoology*. The teeth of that animal, are as white and hard as ivory; but whether the *ελεφάντινα ψάλια*, ivory bits, which *Strabo* * mentions among the articles of the *British* commerce, were made of them, or the tooth of the *Narhwal*, or of some of the toothed whales, is not at this time easy to be determined.

* *Strabo*, Lib. iv. 200.

In this place it will be proper to add, that *Solinus* in his account of *Britain* informs us, that the fine gentlemen of our island adorned the hilts of their swords with the teeth of sea beasts, which were as white as ivory itself*.

Genus XII. The W E E S E L.

Species I. The P O L E C A T.

Putorius.	Polecat or Fitchet.	alba.	Briffon quad. 180.
Raii syn.	quad. 199.	De Buffon, Tom. vii.	199. Tab. 23.
Meyer's an.	ii. Tab. 6.	Mustela putorius,	Lin. syst. 67.
Charlton ex.	20.	Mustela foetida,	Klein quad. 63.
Gesner quad.	767.	Mustela flavescens nigricans,	ore
Mustela pilis in exortu ex cinereo		albo, collari flavescens.	Fauna
albidis, colore nigricante ter-		Suec. 16.	
minatis, oris circumferentia		Br. Zool. 37.	

N A M E S.

Brit.	Ffwlbard	Germ.	Ittif, ulk, Buntfing
Fren.	Le Putois	Dut.	Bonfing
Ital.	Foetta, Puzolo	Swed.	Iller
Span.	Putoro	Dan.	Ilder
Port.			

THE length of this animal, is about seventeen inches, exclusive of the tail; that of the tail six. The shape of this animal in particular, as well as of the whole genus, is long and slender; the nose sharp-pointed, and the legs short: in fine, admirably formed for insinuating itself into the smallest holes and passages, in search of prey: it is very nimble and active, runs very fast, will creep up the sides

* *Polyhistor*, 56.

of walls with great agility, and spring with vast force : in running, the belly seems to touch the ground : in preparing to jump, it arches its back, which assists it greatly in that action.

The ears are short, rounded and tipped with white : the circumference of the mouth, that is to say, the ends of the lower and upper mandibles are white : the head, legs and thighs, are wholly of a deep chocolate color, almost black. The sides are covered with hairs of two colors ; the ends of which are of a blackish hue, like the other parts ; the middle of a full tawny color.

The toes are long, and separated to the very origin : the tail is covered with pretty long hair.

The Polecat is very destructive to young game of all kinds ; and to poultry : they generally reside in woods, or thick brakes ; burroughing under ground, forming a shallow retreat, about two yards in length ; which commonly ends, for its security, among the roots of some large trees : it will sometimes lodge under hay-ricks, and in barns : in the winter it frequents houses, and makes a common practice of robbing the dairy of the milk : it also makes great havoc in warrens.

It will bring five or six at a time ; warreners assert, that the Polecat will mix with the ferret, and they are sometimes obliged to procure an intercourse between these animals to improve the breed of the latter, which by long confinement, will abate its savage nature ; and become less eager after rabbits, and consequently less useful. *M. de Buffon* denies that it will admit the polecat ; yet gives the figure of a variety under

under the name of the *Ferret Polecat* *, which has much the appearance of being a spurious offspring. The Ferret agrees with the polecat in many respects, particularly in its thirst after the blood of rabbits. It may be added, that the Ferret comes originally from *Africa* †; and is only cultivated in *Great Britain*.

Though the smell of the polecat, when alive, is rank and disagreeable, even to a proverb; yet the skin is drest with the hair on, and used as other furs for tippets, &c. and is also sent abroad to line cloaths.

Species II. The MARTIN.

Martes, alias Foyna.	The Mar-	stita, gutture albo.	<i>Briffon</i>
tin and Martlet.	<i>Raii syn.</i>	quad. 178.	
quad. 200.		<i>De Buffon, Tom. vii. 161.</i>	Tab.
<i>Meyer's an. ii. Tab. 4.</i>		18.	
Martin, or Martern.	<i>Charlton</i>	<i>Mustela martes.</i>	<i>Lin. syst. 67.</i>
<i>exer. 20.</i>	The Mertrick.	M. Martes.	<i>Klein quad. 64.</i>
<i>Martin's West. Isles, 36.</i>		M. fulvo-nigricans gula pallida.	
<i>Gesner quad. 764.</i>		<i>Faun. Suec. 15.</i>	
<i>Mustela pilis in exortu albidis</i>		<i>Br. Zool. 38.</i>	
<i>castaneo colore terminatis ve-</i>			

NAMES.

<i>Brit.</i>	Bela graig	<i>Germ.</i>	Huhfs marder, stein marder
<i>Fren.</i>	La Fouine	<i>Dut.</i>	Marter
<i>Ital.</i>	Foina, Fouina	<i>Swed.</i>	Mard
<i>Span.</i>	Marta, Gibellina	<i>Dan.</i>	Maar.

THIS is the most beautiful of the *British* beasts of prey: its head is small, and elegantly formed: its eyes lively: and all its motions shew great

* *La Furet Putois, Tom. vii. Tab. 25.*

† *Kαὶ γαλας ἀγρίας ἄς ἡ λευκὴ φέρει.* *Strabo, Lib. iii. p. 144.*
Edit. Casaubon.

grace, as well as agility: when taken young, it is easily tamed, is extremely playful, and in constant good humour: nature will recur, if it gets loose; for it will immediately take advantage of its liberty, and retire to its proper haunts. It makes great havock among poultry, game, &c. and will eat mice, rats, and moles. With us it inhabits woods, and makes its lodge in the hollows of trees; and brings from four to six young at a time.

The martin is about eighteen inches long; the tail ten, or, if the measurement be taken to the end of the hair at the point, twelve inches.

The ears are broad, rounded and open: the back, sides, and tail, are covered with a fine thick down, and with long hair intermixed: the bottom is ash-colored: the middle of a bright chesnut color: the tips black: the head brown, with some slight cast of red: the legs and upper sides of the feet are of a chocolate color: the palms, or under sides are covered with thick down like that on the body: the feet are broad: the claws white, large and sharp; well adapted for climbing trees, which in this country are its constant residence. The throat and breast are white: the belly of the same color with the back, but rather paler: the hair on the tail is very long; especially at the end, where it appears much thicker than near the origin of it: the hair in that part is also darker. But martins vary in their colors, inclining more or less to ash-color, according to their ages or the seasons they are taken in.

The skin and excrements of this animal, have a fine musky scent; and are entirely free of that rankness

ness which distinguishes the other species of this genus ; the skin is a valuable fur ; and much used for linings to the gowns of magistrates.

Species III. The Yellow Breasted Martin.

Martes abietum. <i>Raii syn. quad.</i>	reo albidis castaneo colore terminatis vestita, gutture flavo.
200.	<i>Briffon quad.</i> 179.
<i>Meyer's an.</i> ii. Tab. 5.	
Martes sylvestris. <i>Gesner quad.</i>	<i>De Buffon, Tom.</i> vii. 186. Tab.
765.	22.
<i>Mustela pilis in exortu ex cinea-</i>	<i>Br. Zool.</i> 39.

NAMES.

<i>Brit.</i>	Bela goed	<i>Port.</i>	
<i>Fren.</i>	La Marte	<i>Germ.</i>	Feld-marder, wild-marder
<i>Ital.</i>	Marta, Martura, Martora, Martorello	<i>Dut.</i>	Marter
<i>Span.</i>	Marta	<i>Swed.</i>	

THIS species is found in *Great Britain* ; but is much less common in *England* than the former ; it is sometimes taken in the counties of *Merioneth* and *Caernarvon* ; where it is distinguished from the other kind, by the name of *bela goed*, or wood martin, it being supposed entirely to inhabit the woods ; the *bela graig* to dwell only among the rocks. Tho' this is so rare in these parts, yet in *Scotland* it is the only kind ; where it inhabits the fir forests, building its nest at the top of the trees *. It loves a cold climate, and is found in much greater numbers in the north of *Europe*, than in the other parts. *North America* abounds with these animals. Prodigious numbers of

* Vide *Sibbald's Hist. Scot.* part ii. lib. iii. p. 11.

their skins are annually imported from *Hudson's-bay* and *Canada*. In one of the company's sales * not fewer than 12,370 good skins, and 2360 damaged ones were sold, and about the same time, the *French* brought into the port of *Rochele* from *Canada*, not less than 30,325.

The principal differences between this and the former kind, consist in the size, this being less: the breast too is yellow; the color of the body much darker, and the fur in general greatly superior in fineness, beauty, and value.

Species IV. The W E E S E L.

The Weasel or Weefel. <i>Mustela vulgaris</i> : in <i>Yorkshire</i> , the Fitchet or Fomart. <i>Raii syn. quad.</i> 195.	<i>Briffon quad.</i> 173.
<i>Girald. Cambrenf.</i> 149.	<i>De Buffon, Tom. vii.</i> 235. Tab. 29.
The Whitred. <i>Sib. Scot.</i> 11.	<i>Gesner quad.</i> 753.
<i>Mustela supra rutila, infra alba.</i>	<i>Mustela vulgaris. Klein quad.</i> 62.
	<i>Br. Zool.</i> 39.

N A M E S.

<i>Brit.</i>	Bronwen	<i>Germ.</i>	Wiesel
<i>Fren.</i>	La Belette	<i>Dut.</i>	Weezel
<i>Ital.</i>	Donnola, Ballottula, Benula	<i>Swed.</i>	Vesla
<i>Span.</i>	Comadreia	<i>Port.</i>	Doninha
		<i>Dan.</i>	Væfel

THIS species is the least of the weefel kind, the length of the head and body not exceeding six, or at most seven inches. The tail is only two inches and a half long, and ends in a point: the ears are large; and the lower parts of them are doubled in.

* In 1743. Vide *Dobbs's* account of *Hudson's-bay*, 200.

The whole upper part of the body, the head, tail, legs, and feet are of a very pale tawny brown. The whole under side of the body from the chin to the tail is white; but beneath the corners of the mouth on each jaw is a spot of brown.

This, like the rest of the kind, is very destructive to young birds, poultry, and young rabbits; and besides a great devourer of eggs. It does not eat its prey on the place, but after killing it, by one bite near the head, carries it off to its young, or its retreat. It is a remarkably active animal, and will run up the sides of walls with such facility, that scarce any place is secure from it; and its body is so small, that there is scarce any hole but what is pervious to it. This species is much more domestic than the others; frequenting out-houses, barns, and grainaries; where, to make as it were some atonement for its depredations among our tame fowl, it soon clears its haunts from rats and mice, being infinitely more an enemy to them than the cat itself. It brings five or six young at a time: its skin and excrements are most intolerably fetid.

This animal is confounded by *Linnaeus* with the Stoat or Ermine. He seems unacquainted with our weasel in its brown color, but describes it in the white state under the title of *Snomus*, or *Mustela nivalis* *.

* *Similima Ermineo sed dimidio minor, caudæ apice pilo vix uno alterove albo. Faun. Suec. No. 18. Syst. Nat. 69.*

S P E C I E S V.

*When brown, the S T O A T.**When white, the E R M I N E.**Mustela candida*, animal ermineum. *Raii syn. quad.* 198.*Mort. Northampt.* 442.*Meyer's an. ii.* Tab. 23, 24.*Mustela hieme alba*, æstate supra rutila infra alba, caudæ apice nigro. *Briffon quad.* 176.*De Buffon*, vii. 240. *Tab.* 29.*Fig. 2. Tab. 31. Fig. 1.**Gesner quad.* 753.*Mustela erminea.* *M. plantis fissis*, caudæ apice atro. *Lin.**syst.* 68. *Faun. Suec.* 17.*Pontop. Norway. Part ii. p.* 25.*Br. Zool.* 40.

N A M E S.

Brit. Carlwm*Fren.* L'Hermine, Le Roselet*Ital.* Armellino*Span.* Armino, Armelina*Germ.* Hermelin*Swed.* Hermelin, Lekatt*Dut.* Hermilyn*Dan.* Hermelin, Lekat

THE length of the stoat to the origin of the tail, is ten inches : that of the tail is five inches and a half. The colors bear so near a resemblance to those of the weasel, as to cause them to be confounded together by the generality of common observers ; the weasel being usually mistaken for a small stoat : but these animals have evident and invariable specific differences, by which they may be easily known. First, by the size ; the weasel being ever less than the stoat ; secondly, the tail of the latter is always tipped with black, is longer in proportion to the bulk of the animal, and more hairy ; whereas the tail of the weasel is shorter, and of the same color with the body :
thirdly,

thirdly, the edges of the ears, and the ends of the toes in this animal, are of a yellowish white. It may be added, that the stoat haunts woods, hedges and meadows; especially where there are brooks, whose sides are covered with small bushes; and sometimes (but less frequently than the weasel) inhabits barns, and other buildings.

In the most northern parts of *Europe*, these animals regularly change their color in winter; and become totally white, except the end of the tail, which continues invariably black. The skins and tails are a very valuable article of commerce in *Norway*, *Lapland*, *Russia*, and other cold countries; where they are found in prodigious numbers. They are also very common in *Kamtschatka* and *Siberia* *. In *Siberia* they burrough in the fields, and are taken in traps baited with flesh. In *Norway* † they are either shot with blunt arrows, or taken in traps made of two flat stones, one being propped up with a stick, to which is fastened a baited string, which when the animals nibble, the stone falls down and crushes them to death. The *Laplanders* take them in the same manner, only instead of stones make use of two logs of wood ‡. The stoat is sometimes found white in *Great Britain*, but not frequently; and then it is called a white weasel. That animal is also found white; but may be easily distinguished from the other in the ermine state, by the tail, which in the weasel is of a light tawny brown. With us the former is observed to

* *Bell's Travels*, i. 199.

† *Hist. Norway*, ii. 25.

‡ *Oeuvres de Maupertuis*, iii. 187.

begin to change its color from brown to white in *November*, and to begin to resume the brown the beginning of *March* *.

The natural history of this creature is much the same with that of the weefel, its food being birds, rabbits, mice, &c. its agility the same, and its scent equally fetid: it is much more common in *England* than that animal.

Sir *Robert Sibbald* mentions an animal, which he says is common in *Caithness*, called there *Lavellan*: by his description it seems to belong to this genus. He says it lives in the water, has the head of the weefel, and resembles that creature in color: and that its breath is prejudicial to cattle. *Sib. Hist. Scot. II.*

* *Ph. Tr. No. 337.*

Genus

Genus XIII. The H A R E.

Species I. The H A R E.

- Lepus Plinii*, lib. viii. c. 55. *De Buffon*, Tom. vi. 246. Tab. 38.
 The Hare. *Raii syn. quad.* 204.
 White Hare. *Mort. Northampt.* 445. *Lepus timidus. Lin. syst.* 77.
Sib. Scot. 11. *Lepus cauda abrupta pupillis atris. Faun. Suec.* 25.
Meyer's an. ii. Tab. 32. *Lepus vulgaris cinereus. Klein quad.* 51.
Gesner quad. 605. *Br. Zool.* 41.
Lepus caudatus ex cinereo rufus. Briffon quad. 94.

N A M E S.

<i>Brit.</i>	Ysgyfarnog, Ceinach	<i>Germ.</i>	Has, Haas
<i>Fren.</i>	Le Lievre	<i>Dut.</i>	Haas
<i>Ital.</i>	Lepre, Lievora	<i>Swed.</i>	Hare
<i>Span.</i>	Liebre	<i>Dan.</i>	Hare
<i>Port.</i>	Lebre		

TO enter on a minute description of so well known an animal, would be to abuse the reader's patience; yet to neglect pointing out the admirable contrivance of its several properties and parts, would be frustrating the chief design of this work: that of pointing out the divine wisdom in the animal world.

Being a weak and most defenceless creature, it is endued, in a very distinguished degree with that preserving passion, fear: this makes it perpetually attentive to every alarm, and keeps it always lean.

To enable it to receive the most distant notices of dangers, it is provided with very long ears, which (like the tubes made use of by the deaf) convey to it the remotest sounds.

Its eyes are very large and prominent, adapted to receive the rays of light, on all sides.

To assist it to escape its pursuers by a speedy flight, the hind legs are formed remarkably long, and furnished with strong muscles: their length give the hare singular advantages over its enemies in ascending steep places; and so sensible is the animal of this, as always to make towards the rising ground when started.

The various stratagems and doubles it uses, when hunted, are so well known to every sportsman, as not to deserve mention; except to awaken their attention to those faculties nature has endowed it with; which serve at the same time to increase their amusement, as well as to prevent the animal's destruction.

It very rarely leaves its form or seat in the day; but in the night takes a circuit in search of food, always returning through the same meuses, or passes.

The color approaches very near to that of the ground; which secures it more effectually from the sight of men, and of beasts and birds of prey. Providence has been so careful in respect to the preservation of the species of animals, as to cause in northern countries these as well as many others to change color, and become white at the beginning of winter; to render them less conspicuous amidst the snow. Accidental instances of white hares, are met with in *Great-Britain*.

Its food is entirely vegetable; and it does great injury to nurseries of young trees, by eating the bark off: it is particularly fond of pinks, parsley, and birch.

The

The hare never pairs ; but in the rutting season, which begins in *February*, the male pursues and discovers the female, by the sagacity of its nose. The female goes with young one month, brings usually two young at a time ; sometimes three, and very rarely four. Sir *Thomas Brown*, in his treatise on vulgar errors *, asserts the doctrine of superfetation ; i. e. a conception upon conception, or an improvement on the first fruit before the second is excluded ; and he brings this animal as an instance ; asserting, from his own observation, that after the first cast there remain successive conceptions, and other younglings very immature, and far from the term of their exclusion ; but as the hare breeds very frequently in the year, there is no necessity of having recourse to this accident † to account for their numbers.

Hares are very subject to fleas ; *Linnaeus* tells us, that the *Dalecarlians* make a sort of cloth of the fur, called *filt* ; which, by attracting those insects, preserves the wearer from their troublesome attacks ‡.

The hair of this creature forms a great article in the hat manufacture ; and as this country cannot supply a sufficient number, vast quantities are annually imported from *Russia* and *Siberia*. In the latter || they collect in great troops of four or five hundred, and during winter are white as the snow they tread on. They are caught in toils for the sake of their

* P. 118.

† For a farther account of this doctrine, we refer the curious reader to M. *Buffon's* works, vol. vi. p. 252, 279, &c.

‡ *Faun. Suec.* 25.

|| *Bell's Travels*, i. 200. 238.

skins, which are so cheap, as to be sold on the spot for a ruble and a half, or 6s. 9d. per hundred *.

The hare was reckoned a great delicacy among the *Romans* †; the *Britains*, on the contrary, thought it impious even to taste it ‡; yet this animal was cultivated by them; either for the pleasure of the chase; or for the purposes of superstition, as we are informed that *Boadicia*, immediately before her last conflict with the *Romans*, let loose a hare she had concealed in her bosom, which taking what was deemed a fortunate course, animated her soldiers by the omen of an easy victory over a timid enemy ||.

Species II. The R A B B E T.

Cuniculus. The Rabbet, or	Lepus cuniculus. <i>Lin. syst.</i> 77.
Cony. <i>Raii syn. quad.</i> 205.	Lepus cauda brevissima papillis
<i>Meyer's an. i. Tab.</i> 83.	rubris. <i>Faun. Suec.</i> 26.
<i>Gesner quad.</i> 362.	Cuniculus terram fodiens. <i>Klein</i>
Lepus caudatus, obscure cinereus.	<i>quad.</i> 52.
<i>Briffon quad.</i> 95.	<i>Br. Zool.</i> 43.
<i>De Buffon, Tom. vi.</i> 303. <i>Tab.</i> 50, 51.	

N A M E S.

<i>Brit.</i> Cwningen	<i>Ger.</i> Kunigle, Kunele, Kunlein
<i>Fren.</i> Le Lapin	<i>Dut.</i> Konyn
<i>Ital.</i> Coniglio	<i>Swed.</i> Kanin
<i>Span.</i> Conejo	<i>Dan.</i> Kanine
<i>Port.</i> Coelho	

IT is well observed by *Pliny*, that nature ‘hath
‘shewed great kindness, in causing those things

* *Strahlenberg's Disc. Russia, &c.* 370.

† Inter aves turdus, si quid me iudice verum est:

Inter quadrupedes gloria prima Lepus est. *Martial.* 13. 92.

‡ Leporem et gallinam et anserem gustare fas non putant: hæc tamen alunt, animi voluptatisque causa. *Cæsar. Com. lib. v.*

|| Ταυτα ει περσας λαγων μεν εκ τε κολπε, &c. *Xiphilini Epitome Dio-*
12f. 173.

‘ to be most prolific, that are the most harmless and
 ‘ and the properest for our food *.

This excellent observation of his, cannot be better illustrated than in shewing the great fruitfulness of this animal ; as it far exceeds that proof, brought by the ingenious author of the œconomy of nature, in support of the same quotation. The instance he produces is the pigeon ; whose increase, from one pair, may in four years amount to 14,760 † : but rabbits will breed seven times a year, and bring eight young ones each time : on a supposition this happens regularly, during four years, their numbers will amount to 1,274,840.

By this account, we might justly apprehend being overstocked with these animals, if they had not a large number of enemies which prevents the too great increase : not only men, but hawks, and beasts of prey, make dreadful havock among the species. Notwithstanding these different enemies, we are told by *Pliny*, and *Strabo*, that they once proved so great a nuisance to the inhabitants of the *Balearic* islands, that they were obliged to implore the assistance of a military force from the *Romans*, in the time of *Augustus*, in order to extirpate them ‡. Their native country is *Spain*, where they were taken by means of ferrets, as we do at present, which animals were first introduced there out of *Africa* § : they love a temperate and a warm climate, and are incapable of

* *Benigna circa hoc natura, innocua et esculenta animalia fœcunda generavit.* Lib. viii. c. 55.

† Vide *Swedish Essays*, translated by Mr. *Stillingfleet*, Ed. 1st. P. 75.

‡ *Plin.* lib. viii. c. 55. *Strabo*, lib. iii. § *Strabo*, iii. 144.

bearing

bearing great cold, so that in *Sweden** they are obliged to be kept in houses. Our country abounds with them; their furs form a considerable article in the hat manufactures; and of late, such part of the fur as is unfit for that purpose, has been found as good as feathers for stuffing beds and bolsters. Numbers of the skins are annually exported into *China*. The *English* counties that are most noted for these animals are *Lincolnshire*, *Norfolk*, and *Cambridgeshire*. *Metbold*, in the last county, is famous for the best sort for the table: the soil there is sandy, and full of mosses and the *Carex* grass.

Formerly the silver-haired rabbits were in great esteem for lining of cloaths, and their skins sold at three shillings a piece †; but since the introduction of the more elegant furs, the price is fallen to sixpence each. The *Sunk Island* ‡ in the *Humber* was once famous for a mouse-colored species, now extirpated by reason of the injury it did to the banks by burroughing.

* *Faun. Suec.* 26.

† *Hartlib's Legacy.*

‡ *Pb. tr.* No. 361.

Genus XIV. The SQUIRREL.

Species I. The SQUIRREL.

- Sciurus vulgaris. Raii syn. quad.* palmis 4-dactylis plantis 5-dactylis. *Lin. syst.* 86.
214. Meyer's an. i. Tab. 97. *Sciurus palmis folis foliens. Faun. Suec.* 37.
Gesner quad. 845. *Sc. vulgaris rubicundus. Klein quad. 53.*
Sciurus rufus, quandoque griseo admixto. Brisson quad. 104. *Br. Zool. 44.*
De Buffon, Tom. vii. 258. Tab. 32.
Sciurus auriculis apice barbatis,

NAMES.

<i>Brit.</i>	Gwiwair	<i>Port.</i>	Ciuro
<i>Fren.</i>	L'Ecureuil	<i>Germ.</i>	Eychorn, Eichmermlin
<i>Ital.</i>	Scoiattolo, Schiarro, Schi-ratto	<i>Dut.</i>	Inkhoorn
		<i>Swed.</i>	Ikorn, graskin
<i>Span.</i>	Harda, Hardilla, Esquilo	<i>Dan.</i>	Ekorn

THE squirrel derives its name from the form of of its tail, a *σκιὰ* a shade, *ὄψα* a tail, as serving this little animal for an umbrella. That part is long enough to cover the whole body, and is clothed with long hairs, disposed on each side horizontally, which gives it a great breadth. These serve a double purpose; when erected, they prove a secure protection from the injuries of heat or cold; when extended, they are very instrumental in promoting those vast leaps the squirrel takes from tree to tree. On the authority of *Klein* and *Linnaeus*, we may add a third application of the form of the tail: these naturalists tell us, that when the squirrel is disposed to cross a river, a piece of bark is the boat, the tail the sail.

This animal is remarkably neat, lively, active, and pro-

provident, never leaves its food to chance; but secures in some hollow tree a vast magazine of nuts for winter provision. In the summer it feeds on the buds and young shoots; and is particularly fond of those of the fir and pine, and also of the young cones. It makes its nest of moss or dry leaves, between the fork of two branches; and brings four or five young at a time. Squirrels are in heat early in the spring, when it is very diverting to see the female feigning an escape from the pursuit of two or three males, to observe the various proofs they give of their agility, which is then exerted in full force.

The color of the whole head, body, tail, and legs of this animal, is a bright reddish brown: the belly and breast white: in some parts of *Wales* there is a variety of the squirrel kind, with a creme-colored tail: the ears are very beautifully ornamented with long tufts of hair, of a deeper color than those on the body: the eyes are large, black, and lively: the fore teeth, strong, sharp, and well adapted to its food: the legs are short and muscular: the toes long, and divided to their origin; the nails strong and sharp; in short, in all respects fitted for climbing, or clinging to the smallest boughs: on the fore-feet it has only four toes, with a claw in the place of the thumb or interior toe: on the hind feet there are five toes.

When it eats or dresses itself, it sits erect, covering the body with its tail, and making use of the fore-legs as hands. It is observed, that the gullet of this animal is very narrow, to prevent it from disgorging its food, in descending of trees, or in down leaps.

Genus XV. The DORMOUSE.

Species I. The DORMOUSE.

Mus avellanarum minor.	The	<i>De Buffon, Tom. viii. 193. Tab.</i>
Dormouse or Sleeper.	<i>Raii</i>	26.
<i>syn. quad. 220.</i>		
The Dormouse.	<i>Edw. 266.</i>	Mus avellanarius. <i>Lin. syst. 83.</i>
<i>Gesner quad. 162.</i>		Mus cauda longa pilosa corpore
Glis supra rufus infra albicans.		rufo gula albicante. <i>Faun.</i>
<i>Briffon quad. 115.</i>		<i>Suec. 35.</i>
		<i>Br. Zool. 45.</i>

NAMES.

<i>Brit.</i>	Pathew	<i>Span.</i>	Liron
<i>Fren.</i>	Le Muscardin, Croque-	<i>Germ.</i>	Rothe, Wald-mans
	noix, Rat-dor	<i>Swed.</i>	Skogsmus
<i>Ital.</i>	Mofcardino	<i>Dan.</i>	Kassel-muus

THIS animal agrees with the squirrel in its food, residence, and some of its actions; on first sight it bears a general resemblance to it; but on a closer inspection, such a difference may be discovered in its several parts, as vindicates M. *Briffon*, for forming a distinct genus of the Dormice, or *Glires*. These want the fifth claw on the interior side of their fore-feet; nor are their ears adorned with those elegant tufts of hair that distinguish the squirrel kind: their tail is so covered with hair, as to appear perfectly round; while that of the squirrel appears flat. These distinctions prevail in the other species, such as the *Lerot* and *Loir*.

Dormice inhabit woods, or very thick hedges; forming their nests in the hollow of some low tree, or
near

or near the bottom of a close shrub: as they want much of the sprightliness of the squirrel, they never aspire to the tops of trees; or, like it, attempt to bound from spray to spray: like the squirrel they form little magazines of nuts, &c. for winter provision; and take their food in the same manner, and same upright posture. The consumption of their hoard during the rigor of the season is but small: for they sleep most part of the time; retiring into their holes at the first approach of winter, they roll themselves up, and lie almost torpid the greatest part of that gloomy season. In that space, they sometimes experience a short revival, in a warm sunny day; when they take a little food, and then relapse into their former state.

The size of the dormouse is equal to that of a mouse; but has a plumper appearance, and the nose is more blunt; the eyes are large, black, and prominent; the ears broad, rounded, thin, and semi-transparent: the forefeet are furnished with four toes; the hind feet with five; but the interior toes of the hind feet are destitute of nails: the tail is about two inches and a half long, closely covered on every side with hair: the head, back, sides, belly, and tail, are of a tawny red color; the throat white.

These animals seldom appear far from their retreats; or in any open place; for which reason they seem less common in *England* than they really are. They make their nests of grass, moss, and dead leaves; and bring usually three or four young at a time.

Genus XVI. The R A T.

Species I. The Common R A T.

Mus domesticus major, seu *Rattus*. *Raii syn. quad.* 217.

Meyer's an. ii. Tab. 83.

Gesner quad. 731.

Mus cauda longissima obscure cinereus. *Briffon quad.* 118.

De Buffon, Tom. vii. p. 278. Tab. 36.

Mus rattus. *Lin. syst.* 83.

Mus cauda longa subnuda corpore fusco cinerescente. *Faun. Suec.* 33.

Mus Rattus, mus cistrinarius. *Klein quad.* 57.

Br. Zool. 46.

N A M E S.

Brit. Llygoden ffrengig

Fren. Le Rat

Ital. Ratto, Sorcio

Span. Raton, Rata

Port. Rato

Germ. Ratz

Dut. Rot

Swed. Rotta

Dan. Rotte

THE rat is the most pernicious of any of our smaller quadrupeds: our meat, corn, paper, cloaths, furniture, in short every conveniency of life is a prey to this destructive creature: nor does it confine itself to these; but will make equal havock among our poultry, rabbits, or young game. Unfortunately for us it is a domestic animal, always residing in houses, barns, or grainaries; and nature has furnished it with fore-teeth of such strength, as enable it to force its way through the hardest wood, or oldest mortar. It makes a lodge, either for its days residence, or for a nest for its young, near a chimney; and improves the warmth of it, by forming there a magazine of wool, bits of cloth, hay or straw.

straw. It breeds frequently in the year, and brings about six or seven young at a time: this species increases so fast, as to over-stock their abode: which often forces them, through deficiency of food, to devour one another: this unnatural disposition happily prevents even the human race from becoming a prey to them; not but that there are instances of their gnawing the extremities of infants in their sleep.

The greatest enemy the rats have is the weefel; which makes infinitely more havock among them than the cat; for the weefel is not only endowed with superior agility; but, from the form of its body, can pursue them through all their retreats that are impervious to the former. The *Norway* rat has also greatly lessened their numbers, and in many places almost extirpated them: this will apologize for a brief description of an animal once so well known: Its length from the nose to the origin of the tail, is seven inches: the tail is near eight inches long: the nose is sharp-pointed, and furnished with long whiskers: the colour of the head and whole upper part of the body is a deep iron-grey, bordering on black; the belly is of a dirty cinereous hue; the legs are of a dusky color, and almost naked: the fore-feet want the thumb or interior toe, having only in its place a claw: the hind-feet are furnished with five toes.

Among other officers, his *British* majesty has a *rat-catcher*, distinguished by a particular dress, scarlet embroidered with yellow worsted, in which are figures of mice destroying wheat-sheaves.

Species

Species II. The *Norway* RAT.

Mus sylvestris, Rat de bois.	Mus norvegicus. Klein quad. 56.
Briffon quad. 20.	Mus ex norvegia. Seb. Mus. Tom.
Le Surmulot. De Buffon, Tom.	ii. 64. Tab. 63.
viii. 206. Tab. 27.	Br. Zool. 47.

THIS is a very large species ; thicker, and of a stronger make than the common rat : the length from the end of the nose to the beginning of the tail, is nine inches ; the length of the tail the same ; the usual weight eleven ounces : the ears resemble those of the rat : the eyes large and black : the color of the head and whole upper part of the body is a light brown, mixed with tawny and ash-color : the end of the nose, the throat and belly, are of a dirty white, inclining to grey : the feet and legs almost bare ; and of a dirty, pale, flesh-color : the beginning of the tail is of the same color as the back ; the rest of the tail is covered with minute dusky scales, mixed with a few hairs.

This is the species well known in this kingdom under the name of the *Norway* rat ; but it is an animal quite unknown in *Scandinavia*, as we have been assured by several natives of the countries that form that tract : and *Linnaeus* * takes no notice of it in his last system. It is fit here to remark an error that gentleman has adopted in speaking of the common rat, which he says was first brought from *America* into *Europe* by means of a ship from *Antwerp*. The fact is,

* *Lin. syst.* 83.

that both rat and mouse were unknown to the new world before it was discovered by the *Europeans*, and the first rats it ever knew, were introduced there by a ship from *Antwerp* *. This animal never made its appearance in *England* till about forty years ago †. It has quite extirpated the common kind wherever it has taken its residence ; and it is to be feared that we shall scarce find any benefit by the change ; the *Norway* rat having the same disposition, with greater abilities of doing mischief, than the common kind. This species burroughs, like the water rat, in the banks of rivers, ponds and ditches ; it takes the water very readily ; and swims, and dives with great celerity : like the black species, it preys on rabbits, poultry, and all kind of game ; and on grain and fruits. It increases most amazingly fast, producing from fourteen to eighteen young at a time. Its bite is not only severe, but dangerous ; the wound being immediately attended with a great swelling, and is a long time in healing. These rats are so bold, as sometimes to turn on those that pursue them, and fasten on the stick or hand of such as offer to strike them.

M. *Briffon* describes this same animal twice under different names, p. 170. under the title of *le rat du bois* ; and again, p. 173. under that of *le rat de norvege*. M. *de Buffon* styles it *le Surmulot* ; as resembling the mulots, or field mice, in many respects ; but exceeding them in bulk.

* *Ovalle's Hist. of Chile in Churchill's Voy.* iii. 43.

† This species reached the neighbourhood of *Paris*, about seventeen years ago.

Species III. The W A T E R R A T.

Le Rat d'Eau, *Belon* 30. pl. 31.
 Mus major aquaticus, seu Rattus
 aquaticus. *Raii syn. quad.* 217.
 Sorex aquaticus. *Charlton ex.* 25.
Meyer's ann. ii. Tab. 84.
 Mus cauda longa pilis supra ex
 nigro et flavescente mixtis, in-
 fra cinereis vestitus. *Briffon*
quad. 124.

De Buffon, Tom. vii. 348. Tab. 43.
 Mus amphibius. Mus cauda
 elongata pilosa plantis palma-
 tis. *Lin. syst.* 82.
 Castor cauda lineari tereti. *Faun.*
Suec. 25. Ed. 1. Mus amphi-
 bins 32. Ed. 2.
 Mus aquatilis. *Klein quad.* 57.
Br. Zool. 48.

N A M E S.

Brit. Llygoden y dwfr
Fren. Le Rat d'eau
Ital. Sörgo morgange
Span.
Port.

Germ. Wasser maus, W. Ratz
Dut. Water-rot
Swed. Watn-ratta
Dan. Vand-rotte

LINNÆUS, from the external appearance of this animal, has in one of his systems placed it in the same genus with the beaver. The form of the head, the shortness of the ears, and the thickness of the fur, and the places it haunts, vindicate in some degree the opinion that naturalist was at that time of: but the form of the tail is so different from that of the beaver, as to oblige him to restore the water rat to the class he found it, in the system of our illustrious countryman Ray.

The water-rat never frequents houses; but is always found on the banks of rivers, ditches and ponds, where it burroughs and breeds. It feeds on small fish, or the fry of greater; on frogs, insects, and sometimes on roots; it has a fishy taste; and in some

countries is eaten ; M. *Buffon* informing us that the peasants in *France* eat it on maigre days.

It swims and dives admirably well, and continues long under water, though the toes are divided like those of the common rat ; not connected by membranes, as Mr. *Ray* imagined ; and as *Linnaeus*, and other writers, relate after him.

The male weighs about nine ounces ; the length seven inches from the end of the nose to the tail ; the tail five inches : on each foot are five toes, the inner toe of the fore-foot is very small ; the first joint of the latter is very flexible, which must assist it greatly in swimming, and forming its retreat. The head is large, the ears small, and scarce appear through the hair : the nose blunt, and the eyes little : the teeth large, strong, and yellow : the head and body are covered with thick and pretty long hairs, chiefly black ; but mixed with some of a reddish hue : the belly is of an iron-grey : the tail is covered with short black hairs, the tip of it with white hairs.

A female that we opened had six young ones in it.

Species

Species IV. The long-tailed Field Mouse.

Mus domesticus medius. *Raii syn. quad.* 218.

Mus cauda longa supra e fusco flavescens infra ex albo cinere-
fcens. *Briffon quad.* 123.

De Buffon, Tom. vii. 325. Tab.
41.

Mus sylvaticus. *M. cauda longa,*
palmis tetradactylis, plantis
pentadactylis, corpore griseo
pilis nigris abdomine albo.
Lin. syst. 84.

Faun. Suec. 36.

Brit. Zool. 49.

N A M E S.

Brit. Llygoden ganolig, Lly-
goden y maes

Fren. Le Mulo
Dan. Voed

THIS measures from the nose-end to the setting on of the tail, four inches and half: the tail is four inches long: the eyes are black, large, and full: the ears prominent: the head and upper part of the body, is of a yellowish brown, mixed with some dusky hairs: the breast is of an ochre color; the rest of the under side is white: the tail is covered with short hair.

These animals are found only in fields and gardens: in some places they are called bean-mice, from the havoke they make among beans when first sown. They feed also on nuts, acorns, and corn, forming in their burroughs vast magazines of winter provision.

Sæpe exiguus mus

Sub terris posuitque domos atque horrea fecit.

Virgil. Georg. 1. l. 181.

Doctor *Derham* takes notice of this wonderful sagacity of theirs, in providing against that season when they would find a defect of food abroad: but they provide also for other animals: the hog comes in for a share; and the great damage we sustain in our fields, by their rooting up the ground, is chiefly owing to their search after the concealed hoards of the field mice.

They generally make the nest for their young very near the surface, and often in a thick tuft of grass; they bring from seven to ten at a time.

Species V. The short-tailed Field Mouse.

Mus agrestis capite grandi brachiu- rus. <i>Raii syn. quad.</i> 218.	Mus agrestis. <i>Faun. Suec.</i> 30. <i>De Buffon, Tom. vii.</i> 369. <i>Tab.</i>
Mus cauda brevi pilis e nigrican- te et sordide luteo mixtis in dorso et saturate cinereis in ven- tre vestitis. <i>Briffon quad.</i> 125.	47. <i>Klein quad.</i> 57. No. 50. <i>Br. Zool.</i> 50.

NAMES.

<i>Brit.</i> Llygoden gwtta'r maes	<i>Fren.</i> Le petit Rat de champs;
<i>Ital.</i> Campagnoli	Le campagnol
	<i>Dan.</i> Skier-muus

THE length of this species, from the nose to the tail, is about six inches; the tail only an inch and a half: the head is very large: the eyes prominent: the ears quite hid in the fur: the whole upper part of the body, is of a ferruginous color, mixed with black; the under side of a deep ash-color: the tail is covered with short hair, ending with a little bush, about a quarter of an inch long.

This

This animal makes its nest in moist meadows, and brings eight young at a time: it has a strong affection for them: one that was seduced into a wire-trap, by placing its brood in it, was so intent on fostering them, that it appeared quite regardless of its captivity. The manner of this creature much resembles the last species: like it, this resides under ground, and lives on nuts, acorns, but particularly on corn: it differs from the former in the place of its abode; seldom infesting gardens.

Species VI. The common MOUSE.

Mus domesticus vulgaris seu minor. *Raii syn. quad.* 218.
Seb. Museum, i. Tab. 111. f. 6.
 its skeleton. *Tab.* 31.
Gesner quad. 714.
Mus cauda longissima, obscure cinereus, ventre subalbescente.
Briffon quad. 119.
De Buffon, Tom. vii. 309. *Tab.* 39.

Mus musculus. *M. cauda elongata, palmis tetradactylis, plantis pentadactylis.* *Lin. syst.* 83.
Faun. Suec. 34.
Mus minor, Musculus vulgaris.
Klein quad. 57.
Br. Zool. 50.

NAMES.

Brit. Llygoden
Fren. La Souris
Ital. Topo, forice
Span. Raton
Port. Ratinho

Germ. Maus
Dut. Muys
Swed. Mus
Dan. Muus

THIS timid, cautious, active, little animal, is too well known to require a description; it is entirely domestic, being never found in fields; or, as *M. Buffon* observes, in any countries uninhabited by mankind: it breeds very frequently in the year, and brings

brings six or seven young at a time. This species is often found of a pure white, in which state it makes a most beautiful appearance; the fine full eye appearing to great advantage, amidst the snowy color of the fur. The root of *white bellebore* and *staves acre*, powdered and mixed with meal, is a certain poison to them.

Genus XVII. The HEDGE HOG.

Species I. The HEDGE HOG, or URCHIN.

Echinus sc. *erinaceus* terrestris.

Raii syn. quad. 231.

Meyer's an. i. Tab. 95, 96.

Sib. Scot. 11.

Erinaceus parvus nostras. *Seb.*

Mus. i. p. 78. Tab. 49. f.

1, 2.

Erinaceus auriculis erectis. *Bris-*

son quad. 128.

De Buffon, Tom. viii. 28. Tab. 6.

Echinus terrestris. *Gesner quad.*

368.

Erinaceus europæus. *Lin. syst.* 75.

Erinaceus spinosus auriculatus.

Faun. Suec. 22.

Acanthion vulgaris nostras. *Klein*

quad. 66.

Br. Zool. 51.

N A M E S.

Brit. Draenog, Draen y coed

Fren. L'Herisson

Ital. Riccio

Span. Erizo

Port. Ourizo

Germ. Eigel

Dut. Eegel-varken

Swed. Igelhot

Dan. Pin-suin, Pin-foe

THE usual length of this animal, exclusive of the tail, is ten inches: the tail is little more than an inch long; but so concealed by the spines as scarce to be visible. The form of the nose, is like that of the hog; the upper mandible being much longer than the lower; and the end flat: the nostrils are narrow, terminated on each side by a thin loose flap: the

the color of the nose is dusky ; it is covered by a few scattered hairs : the upper part of the head, the sides, and the rump, are clothed with strong stiff hairs, approaching the nature of bristles, of a yellowish and cinereous hue.

The legs are short, of a dusky color, and almost bare : the toes on each foot are five in number, long and separated the whole way : the thumb or interior toe, is much shorter than the others : the claws long, but weak : the whole upper part of the body and sides, are closely covered with strong spines, of an inch in length, and very sharp pointed : their lower part is white, the middle black, the points white. The eyes are small and placed high in the head : the ears are round, pretty large and naked. The mouth is small, but well furnished with teeth : in each jaw are two sharp pointed cutting teeth : in the upper jaw are on each side four tusks, and five grinders : in the lower jaws on each side are three tusks, pointing obliquely forward ; and beyond those, four grinders. Mr. *Briffon*, from whose observations this account of the teeth has been taken, has given a very accurate figure of the jaws and teeth, p. 295.

The hedge hog is a nocturnal animal, keeping retired in the day ; but is in motion the whole night, in search of food. It generally resides in small thickets, in hedges, or in ditches covered with bushes ; lying well wrapped up, in moss, grass, or leaves : its food is roots, fruits, worms, and insects : it lies under the undeserved reproach of sucking cattle, and hurting their udders ; but the smallness of its mouth renders that impossible.

It

It is a mild, helpless, and patient animal; and would be liable to injury from every enemy, had not providence guarded it with a strong covering; and a power of rolling itself into a ball; by that means securing the defenceless parts. The barbarity of anatomists furnishes us with an amazing instance of its patience; one that was dissected alive, and whose feet were nailed down to the table endured that, and every stroke of the operator's knife, without even one groan *.

Genus XVIII. The M O L E.

Species I. The M O L E.

Talpa. The Mole, Mold-Warp,
or Want. *Raii syn. quad.* 236.

Spotted Mole. *Edw.* 268.

Meyer's an. i. Tab. 2.

Talpa alba nostras. *Seb. Mus. i.*
p. 61. *Tab.* 32. f. 1.

Sib. Scot. 11.

Gesner quad. 931.

Talpa caudata nigricans pedibus

anticis et posticis pentadactylis. *Briffon quad.* 203.

De Buffon, viii. 81. *Tab.* 12.

Talpa europæus. T. caudata,
pedibus pentadactylis. *Lin.*
syft. 73.

Faun. Suec. 23.

Talpa. *Klein quad.* 60.

Br. Zool. 52.

N A M E S.

Brit. Gwadd, Twrch daear

Fren. La Taupe

Ital. Talpa

Span. Topo

Port. Toupeira

Germ. Mulwerf

Dut. Mol

Swed. Mulvad, Surk

Dan. Muldvarp

THERE are many animals in which the divine wisdom may be more agreeably illus-

* *Clavis terebrari sibi pedes et discindi viscera patientissimè ferebat; omnes cultri ictus sine gemitu plusquam Spartanâ nobilitate concoquens.*
Borrich in Blas, de Echino. Derham's Phys. Theol. 240.

trated ; yet the uniformity of its attention to every article of the creation, even the most contemptible, by adapting the parts to its destined course of life, appears more evident in the mole than in any other animal.

A subterraneous abode being allotted to it, the seeming defects of several of its parts, vanish ; which, instead of appearing maimed, or unfinished, exhibit a most striking proof of the fitness of their contrivance.

The breadth, strength, and shortness of the fore-feet, which are inclined sideways, answer the use as well as form of hands ; to scoop out the earth, to form its habitation, or to pursue its prey. Had they been longer, the falling in of the earth would have prevented the quick repetition of its strokes in working, or have impeded its course : the oblique position of the fore-feet, has also this advantage, that it flings all the loose soil behind the animal.

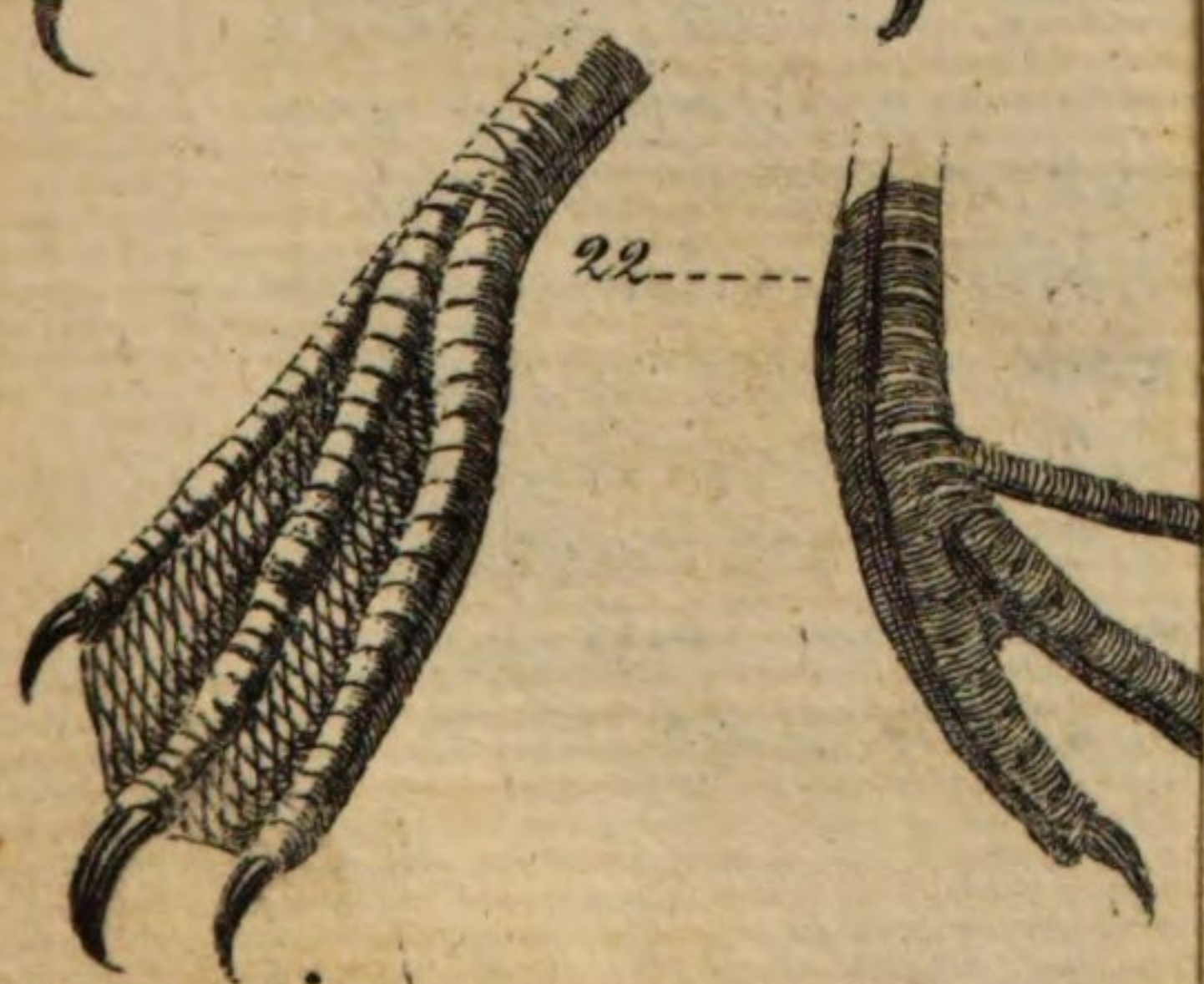
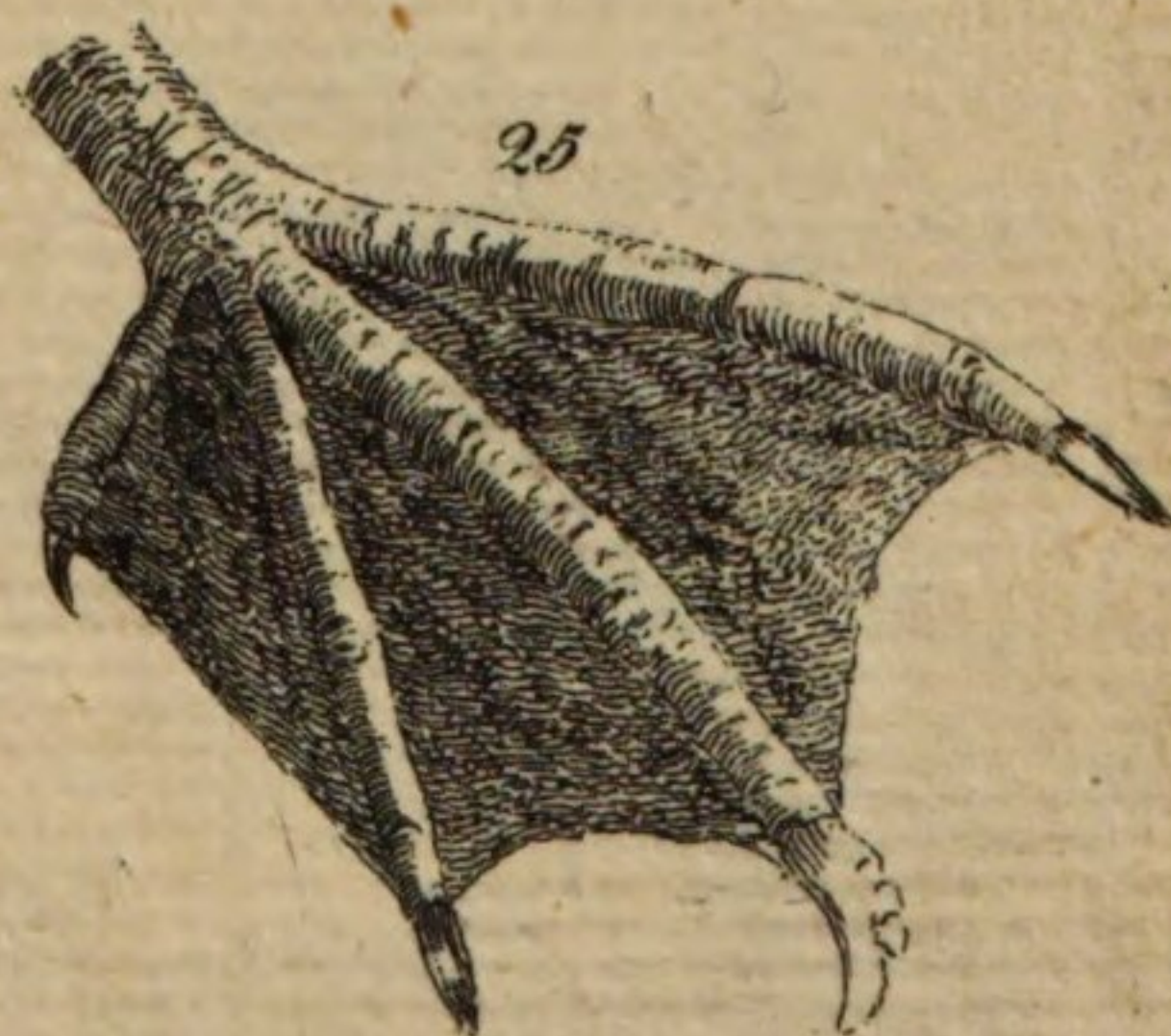
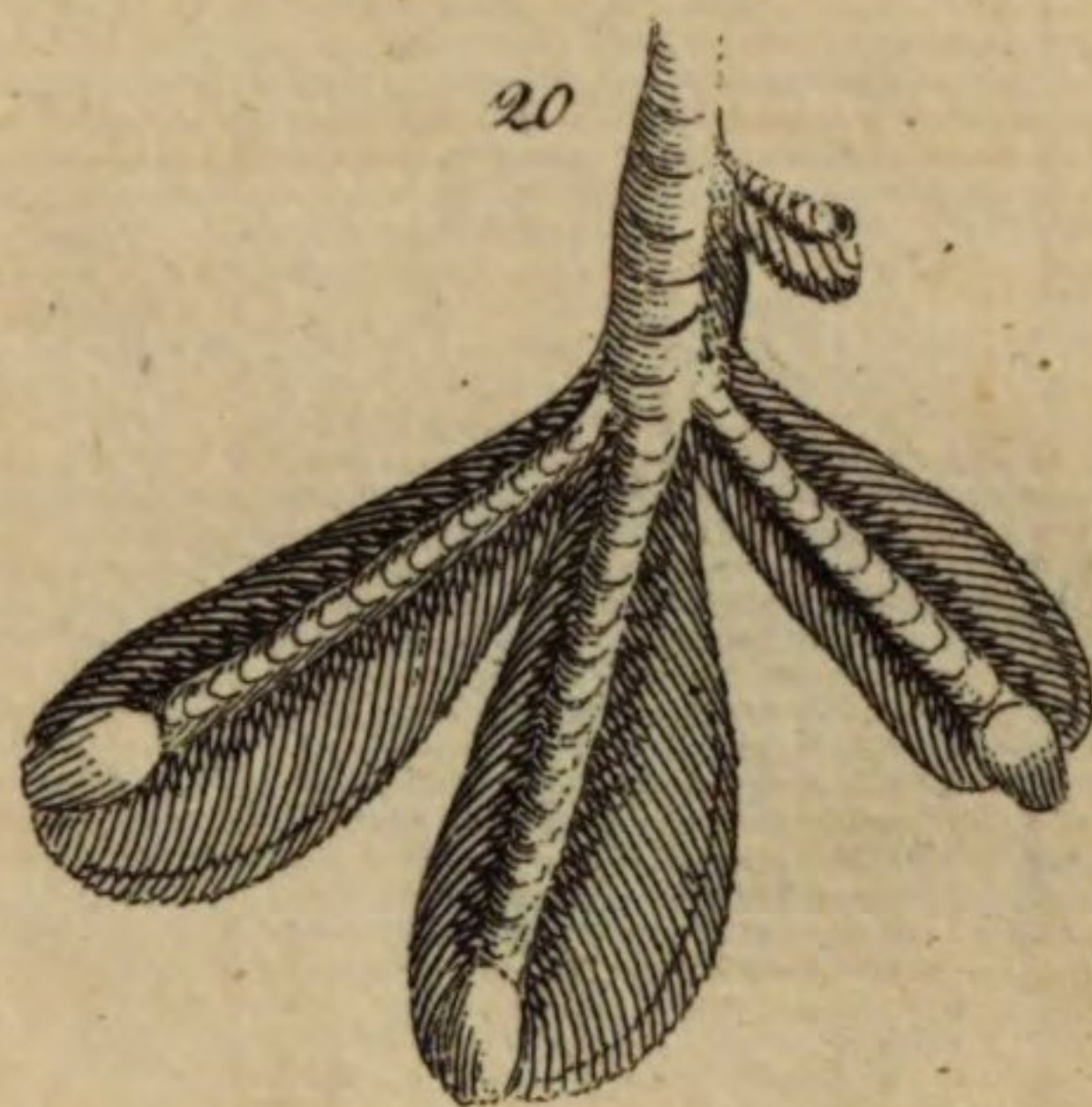
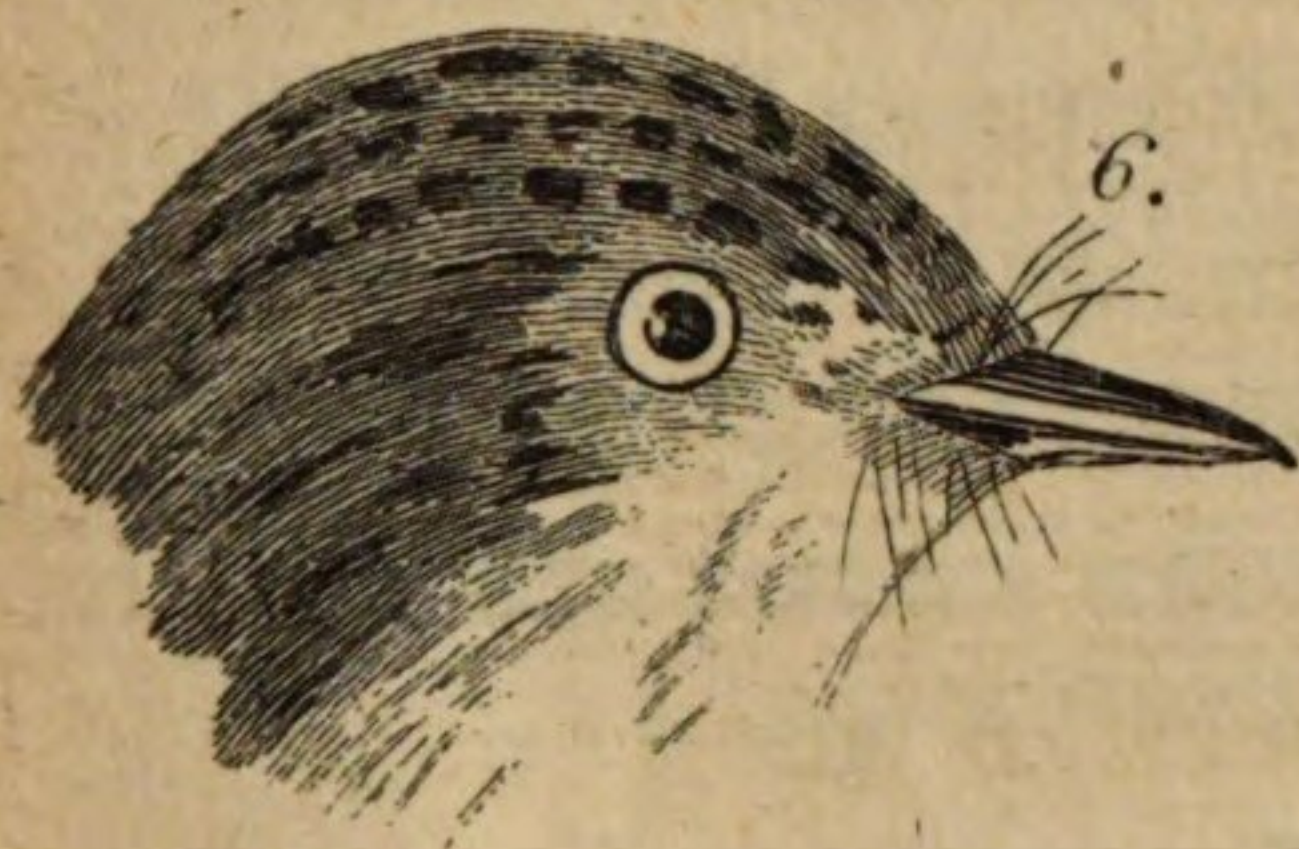
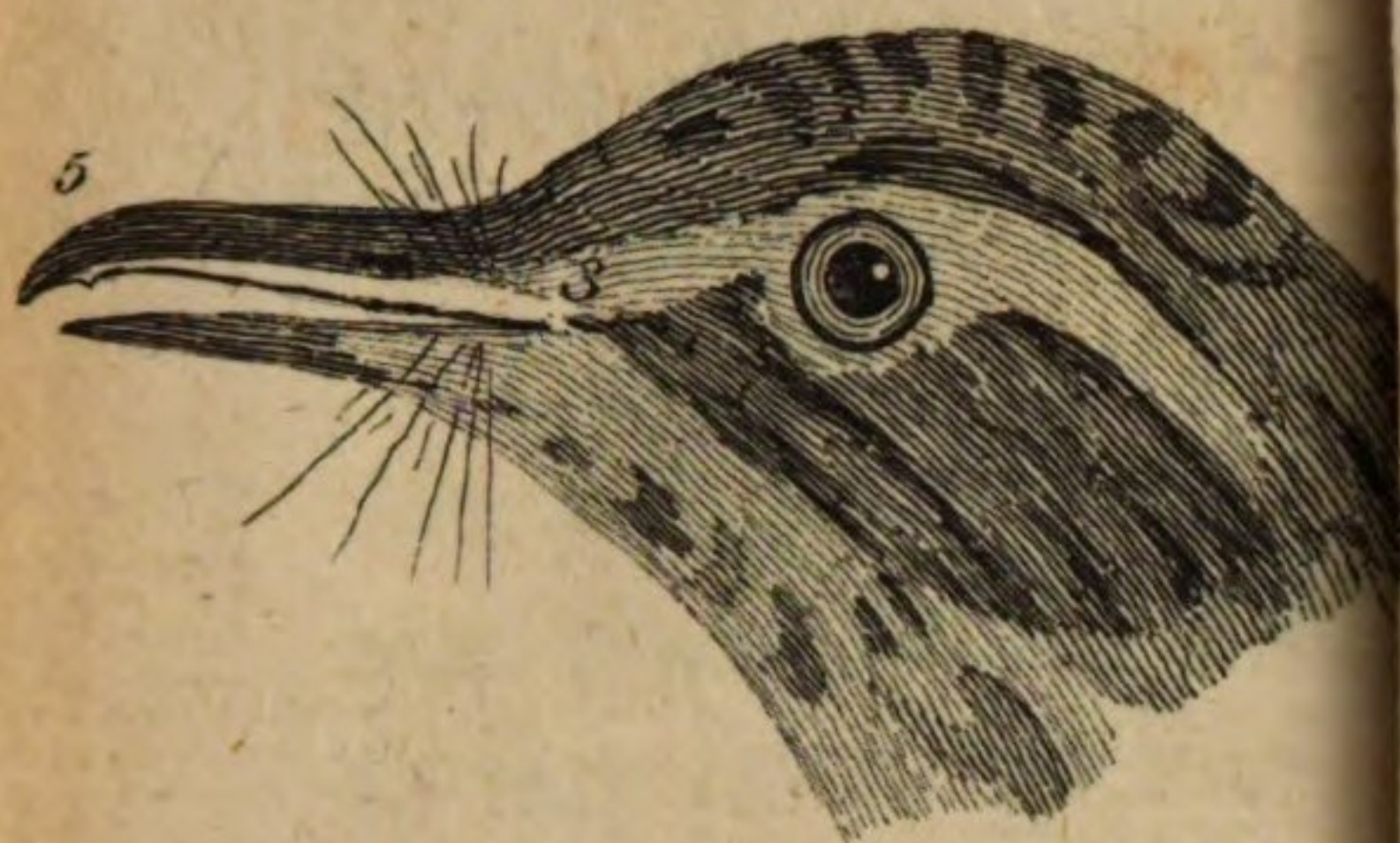
The form of the body is not less admirably contrived for its way of life : the fore part is thick and very muscular, giving great strength to the action of the fore-feet ; enabling it to dig its way with amazing force and rapidity, either to pursue its prey, or elude the search of the most active enemy. The form of its hind parts which are small and taper, enables it to pass with great facility through the earth, that the fore-feet had flung behind ; for had each part of the body been of equal thickness, its flight would have been impeded, and its security precarious.

The smallness of the eyes (which gave occasion
to

to the ancients to deny it the sense of sight *,) is to this animal a peculiar happiness : a small degree of vision, is sufficient for an animal ever destined to live under ground : had these organs been larger, they would have been perpetually liable to injuries, by the earth falling into them ; but nature, to prevent that inconvenience, hath not only made them very small, but also covered them very closely with fur. Anatomists mention (besides these) a third very wonderful contrivance for their security ; and inform us that each eye is furnished with a certain muscle, by which the animal has power of withdrawing or exerting them, according to its exigencies.

To make amends for the dimness of its sight, the mole is amply recompenced, by the great perfection of two other senses, those of hearing and of smelling : the first gives its notice of the most distant approach of danger : the other, which is equally exquisite, directs it in the midst of darkness, to its food : the nose also, being very long and slender, is well formed for thrusting into small holes, in search of the worms and insects that inhabit them. These gifts may with reason be said to compensate the defect of sight, as they supply in this animal all its wants, and all the purposes of that sense. Thus amply supplied as it is, with every necessary accomodation of life ; we must avoid assenting to an observation of *M. de Buffon*, and only refer the reader to the note, where he may find the very

* Aut oculis capti fodere cubilia talpæ. *Virg. Georg. 1.*



P. Mayell f. n.

words of that author ; and compare them with those of our illustrious countryman, Mr. Ray *.

The mole breeds in the spring, and brings four or five young at a time : it makes its nest of moss, and that always under the largest hillock, a little below the surface of the ground. The mole is observed to be most active, and to cast up most earth, immediately before rain : and in the winter before a thaw ; because at those times the worms and insects begin to be in motion, and approach the surface : on the contrary, in very dry weather, this animal seldom or never forms any hillocks, as it penetrates deep after its prey, which at such seasons retires far into the ground. The mole shews great art in skinning a worm, which it always does before it eats it ; stripping the skin from end to end, and squeezing out all the contents of the body.

These animals do incredible damage in gardens, and meadows ; by loosening the roots of plants, flowers, grass, corn, &c. Mortimer says, that the roots of *Palma christi* and *white bellebore*, made into a paste, and laid in their holes, will destroy them. They seem not to have many enemies among other animals, except in *Scotland*, where (if we may depend

* La taupe sans être aveugle, a les yeux si petis, si couverts, qu'elle ne peut faire grand usage du sens de la vûe : en dedommagement la nature lui a donné avec magnificence l'usage du sixième sens, &c.

Mr. Ray makes the latter observation ; but forms from it a conclusion much more solid and moral. *Testes maximos, parastatas amplissimas, novum corpus seminale ab his diversum et separatum—penem etiam facile omnium, ni fallor, animalium longissimum: ex quibus colligere est maximam præ reliquis omnibus animalibus voluptatem in coitu hoc abjectum et vile animalculum percipere, ut habeant quod ipsi invideant, qui in hoc supremas vitæ suæ delicias collocant. Raii syn. quad. 238, 239.*

on Sir *Robert Sibbald*) there is a kind of mouse, with a black back, that destroys moles *. We have been assured that moles are not found in *Ireland*.

Genus XIX. The SHREW MOUSE.

Species I. The SHREW MOUSE.

<i>Mus araneus.</i> Shrew, Shrew Mouse, or Hardy Shrew. <i>Raii</i> <i>syn. quad.</i> 233. <i>Gesner quad.</i> 747.	<i>De Buffon, Tom. viii. 57. Tab. 10.</i> <i>Sorex araneus.</i> S. cauda cor- pore longiore. <i>Lin. syst.</i> 74. <i>Faun. Suec.</i> 24.
<i>Mus araneus supra ex fusco rufus</i> <i>infra albicans.</i> <i>Briffon quad.</i> 126.	<i>Mus araneus rostro productiore.</i> <i>Klein quad.</i> 58. <i>Br. Zool.</i> 54.

N A M E S.

<i>Brit.</i> Llygoden goch, Chwist- len, Llyg	<i>Port.</i>
<i>Fren.</i> La Musaraigne	<i>Germ.</i> Spitzmus, Zissmufs, Mu- ger
<i>Ital.</i> Toporagno	<i>Swed.</i> Nabbmus
<i>Span.</i> Murganho	<i>Dan.</i> Næbmuus, Muusefkier

THE length of this little animal, from the end of the nose to the origin of the tail is two inches and a half: that of the tail, near one inch and a half: the nose is very long and slender; and the upper mandible is much longer than the lower: the ears are short, and rounded: the eyes are very small; and, like those of the mole, almost concealed in the hair. The color of the head, and upper part of the body, is of a brownish dusky red: the belly of a dirty white: the tail is covered with short dusky hairs:

* *Sib. Hist. Scot.* part iii. p. 12.

the legs are very short : the hind legs are placed very far back : the feet are divided into five distinct toes.

The teeth are twenty-eight in number ; and of so singular a form, as to engage the attention of most naturalists. *Gesner* is of opinion, that nature seems to have formed, in this animal, teeth of mixed shape, between those of mice and serpents : the two upper fore-teeth are very sharp, and on each side of them grows a minute process, scarce visible, except on a near inspection : the other teeth are placed close together, are very small, and seem scarce separated.

The shrew mouse inhabits old walls, heaps of stones, or holes in the earth : is frequently found near out-buildings, hay-ricks, dung-hills, and necessary houses : it lives on insects, corn, and any filth ; and has been observed rooting like a hog in the last named places : either from its food, or its nature, it has a strong disagreeable smell ; insomuch that the cat will kill it, yet refuses to eat it. It is said to bring four or five young at a time:

Genus XX. The B A T.

Species I. The short-eared B A T.

- Vespertilio. Bat, Flitter, or Flut-
ter Mouse. *Raii syn. quad.* 243.
Short-eared *English* Bat. *Edw. av.* 201. f. 2.
Seb. Mus. i.
The Rear Mouse. *Charlton ex.* 80.
Meyer's an. i. Tab. 3.
Gesner av. 766.
Vespertilio murini coloris, pedi-
bus omnibus pentadactylis. *Briffon quad.* 158.
La chauve souris. *De Buffon, Tom. viii.* 113. Tab. 16.
Vespertilio murinus. *Lin. syst.* 47.
V. caudatus naso oreque simplici. *Faun. Suec.* 2.
V. major. *Klein quad.* 61.
Vespertilio. *Plinii Lib. x.* 6.
61.
Br. Zool. 55.

N A M E S.

- | | | | |
|--------------|--|--------------|-----------------------|
| <i>Brit.</i> | Ystlum | <i>Port.</i> | Morcego |
| <i>Fren.</i> | La Chauve souris | <i>Germ.</i> | Speckmaus, Fledermaus |
| <i>Ital.</i> | Nottola, Notula, Sporeglione, Vilpistrello, Vilpistrello | <i>Dut.</i> | Vledermuys |
| | | <i>Swed.</i> | Laderlap, Fladermus |
| | | <i>Dan.</i> | Flagermus, Aftenbakke |
| <i>Span.</i> | Murcielago, Morciegalo | | |

THIS singular animal was placed by *Pliny*, *Gesner*, *Aldrovandus*, and some other naturalists, among the birds: they did not consider, that it wanted every character of that order of animals, except the power of flying: if the irregular, uncertain, and jerking motion * of the bat in the air, can merit the name of flight. No birds whatsoever are furnished with teeth, or bring forth their young alive, and suckle them: were other notes wanting, these would be sufficient to determine that the bat is a quadruped.

* The *English* synonym of this animal, *Flitter*, or *Flutter mouse*, is very expressive of its action in the air.

The species now described, is the larger of the two kinds found in *England*; and the most common: the usual length of it, is about two inches and a half: the extent of the fore-legs nine inches.

The members that are usually called the wings, are nothing more than the four interior toes of the fore-feet, produced to a great length, and connected by a thin membrane; which extends also to the hind legs; and from them to the tail: the first toe is quite loose, and serves as a heel, when the bat walks; or as a hook, when it would adhere to any thing. The hind feet are disengaged from the membrane, and divided into five toes, furnished with pretty strong claws. The membranes are of a dusky color: the body is covered with short fur, of a mouse-color, tinged with red. The eyes are very small: the ears like those of the mouse.

This species of bat is very common in *England*: it makes its first appearance early in the summer, and begins its flight in the dusk of the evening: it principally frequents the sides of woods, glades, and shady walks; and is also frequently observed to skim along the surface of pieces of water, in quest of gnats and insects: these are not its only food; for it will eat meat of any kind that it happens to find hanging up, in a larder.

The bat brings only two young at a time; which it suckles from two teats placed on the breast, like those of the human race: for this reason, *Linnaeus* has classed this animal in the same order with mankind; and has honored both, with the common title of *Primates*, or chiefs of the creation.

Towards the latter end of summer, the bat retires into caves, ruined buildings, the roofs of houses, or hollow trees; where it remains the whole winter, in a state of inaction; suspended by the hind feet, and closely wrapped up in the membranes of the fore-feet.

The voice of the bat is somewhat like that of the mouse; but very low, and weak. *Ovid* takes notice both of that, and the derivation of its *Latin* name.

Lucemque perosæ
Nocte volante, seroque tenent a vespere nomen.
Minimam pro corpore vocem
Emittunt peraguntque levi stridore querelas.

Met. lib. iv. 10.

II. The LONG-EARED BAT.

Edw. av. 201. f. 3.

Alb. iii. Tab. 101.

La petite chauve souris de notre
pays. *Briffon quad. 160.*

L'oreillar. *De Buffon, Tom. viii.*

118. 127. *Tab. 17. f. 1.*

Vespertilio auritus. Lin. syst. 47.

*V. auritus, naso oreque simplici,
auriculis duplicatis, capite ma-
joribus. Faun. Suec. 3.*

Br. Zool. 56.

THIS species is much inferior in size to the former: the length being only an inch and three quarters; and the extent of the fore-legs seven inches.

The principal distinction, between this and the common kind, is the ears; which in this are above an inch long, very thin, and almost transparent: within each of these is a lesser ear, or at least a membrane resembling one; which, as Mr. *Edwards* observes, may possibly serve as a valve to close the larger, in the sleeping state of this animal.

Class II.

C L A S S II.

B I R D S.

Div. I. Land Birds.

II. Water Birds.

G E N E R A.

Division I.

Strong hooked bills and claws : the base of the former covered with a naked skin or cere: the first joint of the middle toe con- nected to that of the outmost by a membrane - - - - -	Genus	Page
	I. Hawks	121
Strong hooked bills, no cere: the outmost toe capable of being turned back, and doing the office of a hind toe - - - - -	II. Owls	155
Strong bills hooked at the end, no cere: the outmost toe closely connected to the middle toe as far as the first joint - - - - -	III. Butcherbirds	161

Genus		Page
Strait strong bills; nostrils covered with bristles reflected down: outmost toe closely connected to the middle toe as far as the first joint - - - - -	IV. Crows	166
Toes disposed two forwards, two backwards	Strong, strait, angu- lar bill; long cy- lindric tongue: ten stiff feathers in the tail - -	V. Wood- peckers 176
	Weak smooth bill; long cylindric tongue: ten flex- ible feathers in the tail - - - - -	VI. Wryneck 181
	Bill a little bent; short tongue: ten fea- thers in the tail	VII. Cuckoo 182
	Strait triangular bill: short tongue, horny at the end and jagged	VIII. Nuthatch 185
	Strait strong bill: tongue short and sharp pointed: three lower joints of the outmost toe closely con- nected to the middle toe - -	IX. Kingfisher 187
	Weak slender hooked bill: twelve feathers in the tail - - - - -	X. Creeper 193
	Slender hooked bill: ten feathers in the tail: very short triangular tongue - - - - -	XI. Hoopoe 195
	Bill slightly bent: twelve feathers in the tail: tongue cloven at the end - - - - -	XII. Chough 197

Short

	Genus	Page
Short arched bills : outmost and inner toes connected to the first joint of the middle toe by a small membrane - - - - -	XIII. Grouse	199
Strong bill a little incurvated : no back toe - - - - -	XIV. Bustard	214
Weak strait bills ; nostrils lodged in a tuberos naked skin : toes divided to their origin - - -	XV. Pigeons	216
Straight bills a little bending at the point : a small notch near the end of the upper mandible : outmost toe adhering as far as the first joint to the middle toe -	XVI. Thrushes	223
Straight bill, a little compressed - - -	XVII. Stare	231
Weak bills : very long claw to the hind toe - - - - -	XVIII. Larks	233
Short weak bills ; very wide mouths : small weak legs	XIX. Swallows	242
Slender weak bills : short claw to the back toe - - -	XX. Slender billed birds	254
Small birds - Very strong thick bills - - - - -	XXI. Grosbeaks	278
Strong conic bills - - -	XXII. Finches	303
Conic bills, with a hard knob in the roof of the upper mandible - - -	XXIII. Buntings	318
Short strong bills ; tongue terminated with bristles - - -	XXIV. Titmice	324

Division II.

WATER-BIRDS,

Section I. With cloven Feet.

II. With finned Feet.

III. With webbed Feet.

I.

	Genus.	Page.
Very long legs and necks: strait, strong, and sharp pointed bills }	I. Herons	339
Slender, long, and incurvated bills	II. Curlews	346
Slender, long, and strait bills - -	III. Woodcocks	348
Short, slender, and strait bills - -	IV. Sandpipers	360
Strait bills: no back toe - - -	V. Plovers	376
Short slender bill, slightly incurvated, toes divided to the origin - - }	VI. Rail	385
Short thick bills; the base of the upper mandible produced for some space up the forehead; toes divided to the origin - - - }	VII. Waterhens	386

II.

Strait, slender and weak bills; toes furnished with scalloped mem- branes - - - - - }	VIII. Scallop-toed Sandpipers	390
		Short

Short thick bills, with a callus extending up the forehead: toes furnished on their sides with broad scalloped membranes - } IX. Coots 392

Straight, strong, sharp pointed bills: toes furnished on their sides with broad plain membranes; no tail - - - - - } X. Grebes 393

III.

Long, slender, and compressed bill turned upwards - - - - - } XI. Avosetta 399

No back toe - - - - - } XII. Auks 401

Strong, straight, sharp pointed bills } XIII. Divers 413

Strong bills hooked at the end; an angular knob on the lower mandible: narrow oblong nostrils } XIV. Gulls 416

Straight, slender, sharp-pointed bills: forked tails - - - - - } XV. Terns 428

Strong bills hooked at the end; tubular nostrils: sharp process instead of the back toe - - - } XVI. Petrels 431

Long slender bills hooked at the ends, and the edges furnished with numerous small teeth - } XVII. Goosanders 436

Flat broad bills - - - - - } XVIII. Ducks 440

Each of the four toes connected by a web - - - - - } XIX. Cormorants 476

Explanation of some technical Terms in Ornithology used in this Work, and by *Linnaeus*.

Fig.

1. *Cere. Cera*

The naked skin that covers the base of the bill in the *hawk* kind.

2. *Capistrum*

A word used by *Linnaeus* to express the short feathers on the forehead just above the bill. In *Crows* these fall forward over the nostrils.

3. *Lorum*

The space between the bill and the eye generally covered with feathers, but in some birds naked, as in the black and white *Grebe*.

4. *Orbits. Orbita*

The skin that surrounds the eye, which is generally bare, particularly in the *Heron* and *Parrot*.

5. *Emarginatum*

A bill is called *rostrum emarginatum* when there is a small notch near the end: this is conspicuous in that of *Butcher-birds* and *Thrushes*.

6. *Vibrissæ*

Vibrissæ pectinatae, stiff hairs that grow on each side the mouth, formed like a double comb, to be seen in the *Goat-sucker*, *Flycatcher*, &c.

7. *Bastard wing. Alula spuria*

A small joint rising at the end of the middle part of the wing, or the *cubitus*; on which are three or five feathers.

8. *Lesser*

8. *Lesser coverts of the wings.* *Tectrices primæ* The small feathers that lie in several rows on the bones of the wings. The *under coverts* are those that line the inside of the wings.
9. *Greater coverts.* *Tectrices secundæ* The feathers that lie immediately over the quill-feathers and secondary feathers.
10. *Quill-feathers.* *Primores* The largest feathers of the wings, or those that rise from the first bone.
11. *Secondary feathers.* *Secundariæ* Those that rise from the second.
12. *Coverts of the tail.* *Uropygium* Those that cover the base of the tail.
13. *Vent-feathers.* Those that lie from the vent to the tail. *Crissum Linnæi.*
14. *The tail.* *Rectrices*
15. *Scapular feathers* That rise from the shoulders and cover the sides of the back.
16. *Nucha* The hind part of the head.
17. *Rostrum subulatum* A term *Linnæus* uses for a strait and slender bill.
18. To shew the structure of the feet of the *Kingfisher.*
19. *Pes scansorius* The foot of the *Woodpecker* formed for climbing.
20. *Finned foot.* *Pes lobatus, pinnatus* Such as those of the *Grebes*, &c. such as are indented as *fig. 21.* are called scalloped, such are those of *Coots* and scallop toed *Sandpipers.*
22. *Pes tridactylus* Such as want the back toe.
23. *Semi-palmated.* *Pes semi-palmatus* When the webs only reach half way of the toes.

24. *Ungue postico sessili*

When the hind claw adheres to the leg without any toe, as in the *Petrels*.

25. *Digitis 4 omnibus palmaris*

All the four toes connected by webs as in the *Corvorants*.

Explanation of other *Linnæan* Terms.

Rostrum cultratum

When the edges of the bill are very sharp, such as in that of the *Crow*.

Unguiculatum

A bill with a nail at the end, as in those of the *Goosanders* and *Ducks*.

[*Lingua ciliata*

When the tongue is edged with fine bristles, as in *Ducks*.

Integra

When quite plain or even.

Lumbriciformis

When the tongue is long, round and slender like a worm, as that of the *Woodpecker*.

Pedes compedes

When the legs are placed so far behind as to make the bird walk with difficulty, or as if in fetters; as is the case with the *Auks*, *Grebes* and *Divers*.

Nares Lineares

When the nostrils are very narrow, as in *Sea Gulls*.

Marginatæ

With a rim round the nostrils, as in the *Stare*.

C A T A L O G U E

O F

B R I T I S H B I R D S.*

I. L A N D B I R D S.

ENGLISH NAMES.	BRITISH NAMES.
1 G OLDEN Eagle	Yr Eryr melyn
2 R ingtail Eagle	Eryr tinwyn
3 Sea Eagle	Eryr mawr y mor. Mor Eryr
4 Osprey	Pyſg Eryr, Gwalch y weilgi
5 Erne	Eryr cynffonwyn
6 Gyrfalcon	Hebog chwyldro
7 Peregrine Falcon	Hebog tramor. Cammin
8 Grey Falcon	Hebog. Gwalch
9 Lanner	Hebog gwlanog
10 Goshawk	Hebog Marthin
11 Kite	Barcud
12 Common Buzzard	Bod teircaill
13 Honey Buzzard	Bod y mel
14 Moor Buzzard	Bod y gwerni
15 Hen-Harrier	Bod tinwyn
16 Kestrel	Cudyll coch. Ceinllef goch
17 Hobby	Hebog yr Hedydd
18 Sparrow Hawk	Pilan. Gwepia
19 Merlin	Corwalch. Llymyſten
20 Long-eared Owl	Dylluan gorniog
21 Short-eared Owl	Dylluan glustiog

* For the *British* names we are indebted to that master of the language, *Richard Morris, Esq;* of the Navy-office.

ENGLISH NAMES.	BRITISH NAMES.
22 White Owl	Dylluan wen
23 Tawny Owl	Dylluan frech
24 Brown Owl	Dylluan rudd. Aderyn y cyrph
25 Little Owl	Coeg Ddylluan
26 Great Butcher-bird	Y Cigydd mawr
27 Red-back'd Butcher-bird	Y Cigydd cefngoch
28 Woodchat	Y Cigydd glas
29 Left Butcher-bird	Y Cigydd bach. Y Barfog
30 Raven	Bran. Cigfran
31 Crow	Bran dyddyn. Bran dyfyn
32 Rook	Ydfran
33 Royston Crow	Bran yr Iwerddon
34 Magpie	Piogen. Y Bi
35 Jay	Piogen y coed
36 Chatterer	Sidan gynffon
37 Jackdaw	Cogfran
38 Green Woodpecker	Cnoccell y coed. Delor y derw
39 Greater Spotted Wood- pecker	Y Ddelor fraith
40 Lesser Spotted Wood- pecker	
41 Wryneck	Y Pengam. Gwas y Gog
42 Cuckoo	Cog
43 Nut-hatch	Delor y cnau
44 Kingfisher	Glas y dorlan
45 Creeper	Y Grepianog
46 Hoopoe	Y Goppog
47 Cornish Chough	Bran big-coch
48 Cock of the Wood	Ceiliog coed
49 Black Cock	Ceiliog du. Grugiar
50 Grouse	Ceiliog mynydd. Jar fynydd
51 Ptarmigan	Coriar yr Alban

ENGLISH NAMES.	BRITISH NAMES
52 Partridge	Petrifen. Coriar
53 Quail	Soffiar
54 Bustard	Yr Araf ehedydd
55 Common Pigeon	Colomen
56 Ring-dove	Ysguthan
57 Turtle	Colomen fair. Turtur
58 Miffel-bird	{ Y Drefglen. Pen y llwyn. Crece
59 Fieldfare	Cafeg y ddryccin
60 Throftle	Ceiliog bronfraith
61 Redwing	{ Y Drefglen goch. Soccen yr eira
62 Blackbird	{ Yr Aderyn du. Ceiliog Mwyalch
63 Ring-ouzel	Mwyalchen y graig
64 Water-ouzel	Mwyalchen y dwfr
65 Stare	{ Drudwen. Drudwy. Y Drydws
66 Sky-lark	Hedydd. Uchedydd. Ehedydd
67 Wood-lark	{ Hedydd y coed. Esgudo- gyll
68 Tit-lark	{ Coeg Hedydd. Cor He- dydd
69 Lesser Field-lark	Hedydd bach y cae
70 Red-lark	Hedydd coch
71 Lesser Crested-lark	Hedydd cribog
72 Grasshopper-lark	Gwich Hedydd
73 Willow-lark	Hedydd yr helyg
74 House-swallow	Gwennol. Gwenfol
75 Martin	Marthin
76 Sand-martin	Gwennol y glennydd
77 Swift	Marthin du
78 Goatsucker	Aderyn y droell. Y Rhodwr
79 Nightingale	Eos
80 Redstart	Rhawn-goch. Rhonell goch
81 Redbreast	Yr Hobi goch. Bron-goch
	82 Black-

ENGLISH NAMES.	BRITISH NAMES.
82 Blackcap	Penddu'r brwyn
83 Pettichaps	Y Ffigyflog
84 Fly-catcher	Y Gwybedog
85 Hedge-sparrow	Llwyd y gwrych
86 Willow Wren	Dryw'r helyg
87 Golden-crested Wren	Yswigw. Sywidw.
88 Wren	Dryw
89 Wheat-ear	Y Gynffonwen
90 Whin-chat	Clochder yr eithin
91 Stone-chatter	Clochder y cerrig
92 Cold-finch	Clochder y mynydd
93 White-throat	Y Gwddfgwyn
94 White Water-wagtail	{ Brith y fuches. Tinfogl y gwys
95 Yellow Water-wagtail	Brith y fuches felen
96 Grey Water-wagtail	Brith y fuches lwyd
97 Grosbeak	Gylfinbraff
98 Crossbill	Gylfin-groes
99 Bulfinch	Y Chwibanydd
100 Sparrow	Aderyn y to. Golfan
101 Greenfinch	Llinos werdd. Y Gegid
102 Goldfinch	Gwas y fierri. Peneuryn
103 Chaffinch	Bronrhuddyn
104 Brambling	Bronrhuddyn y mynydd
105 Mountain Sparrow	Golfan y mynydd
106 Siskin	Y Ddreiniog
107 Linnet	Llinos
108 Greater red-headed Linnet	Llinos ben-goch fwyaf
109 Lesser red-headed Linnet	Llinos ben-goch leiaf
110 Mountain Linnet	{ Llinos fynydd. Chwiba- nogl y mynydd
111 Bunting	Bras y ddruttan. Bras yr yd
112 Yellowhammer	Llinos felen. Melynog
113 Reedsparrow	Golfan y cyrs
114 Greater Brambling	Golfan yr eira
115 Lesser Brambling	Yr Olfan leiaf
116 Great Titmouse	Y Benloyn fwyaf
117 Blue Titmouse	{ Y Lleian. Llygoden y derw

ENGLISH NAMES.

BRITISH NAMES.

118	Colemouse	Y Benloyn lygliw
119	Marsh Titmouse	Penloyn y cyrs
120	Long-tail'd Titmouse	Y Lleian gynffonhir

II. CLOVEN-FOOTED WATER BIRDS.

121	Crested Heron	Cryr Coppog
122	Common Heron	Cryr glas. Cryhyr cam
123	Bittern	Aderyn y bwn
124	Great White Heron	Cryr gwyn
125	Curlew	Gylfinhir
126	Whimbrel	Coeg Ylfinhir
127	Woodcock	Cyffylog
128	Godwit	Rhostog
129	Red Godwit	Rhostog coch
130	Lesser Godwit	Cwttyrn du
131	Greenshank	Coeswerdd
132	Spotted Redshank	Coesgoch mannog
133	Snipe	Ysnid. Ysnittan
134	Jacksnipe	Giach
135	Lapwing	Corniccyll. Cornchwigl
136	Grey Plover	Cwtiaid llwydion
137	Ruffe	Yr Ymladdgar
138	Knot	Y Cnut
139	Ash-colored Sandpiper	Y Pibydd glas
140	Redshank	Coesgoch
141	Spotted Sandpiper	Y Pibydd mannog
142	Black Spotted Sand- piper	Y Pibydd du mannog
143	Turnstone	Huttan y mor
144	Green Sandpiper	Y Pibydd gwyrdd
145	Sandpiper	Pibydd y traeth
146	Dunlin	Y Pibydd rhuddgoch
147	Purpe	Llygad yr ych
148	Sea Pie	Piogen y mor
149	Norfolk Plover	Y Glinbraff
150	Green Plover	Cwtiaid yr aur
151	Long-legged Plover	Cwtiaid hirgoes

ENGLISH NAMES.	BRITISH NAMES.
152 Dottrell	Huttan
153 Sea Lark	Mor Hedydd
154 Sanderling	Llwyd y tywod
155 Water Rail	{ Cwtiar. Y Fronwen. Rhe- gen y dwfr
156 Small spotted Water-hen	Corddyfriar fannog.
157 Land Rail	{ Rhegen y rhych. Rhegen yr yd
158 Common Water hen	Dyfriar
159 Grey scollop - toed } Sandpiper }	{ Y Pibydd llwyd llydan- droed
160 Red ditto	Y Pibydd coch llydandroed
161 The Coot	Jar ddwfr foel
162 Great crested Grebe	Gwyach gorniog. Tindroed
163 Grebe	{ Gwyach. Dowciar. Wil y wawch
164 Lesser crested Grebe	Gwyach glustïog
165 White and dusky Grebe	Gwyach leiaf
166 Little Grebe	Harri gwlych dy big

III. WEB-FOOTED WATER-FOWL.

167 Avosetta	Pig mynawyd
168 Great Auk	Y Carfil mawr
169 Auk	Carfil. Gwalch y Penwaig
170 Black-billed Auk	Carfil gylfinddu
171 Puffin	Pwffïngen
172 Little Auk	Y Carfil bach
173 Guillemot	Gwilym
174 Lesser Guillemot	Chwilog
175 Black Guillemot	Gwilym du
176 Great Northern Diver	Y Trochydd mawr
177 Grey speckled Diver	Trochydd bach
178 Red-throated Diver	Y Trochydd gwddfgoch

ENGLISH NAMES.	BRITISH NAMES.
179 Great black and white } Gull	Gwylan ddu a gwyn
180 Skua	Gwylan frech
181 Black-toed Gull	Yr Wylan ysgafn
182 Arctic Gull	Gwylan y gogledd
183 Herring Gull	Gwylan Benwaig
184 Brown and white Gull	Gwylan rudd a gwyn
185 Winter Mew	Gwylan y gweunydd
186 Common Gull	Gwylan lwyd. Huccan
187 Tarrock	Gwylan Gernyw
188 Pewit Gull	Yr Wylan benddu. Bran y mor
189 Small brown Gull	Yr Wylan fechan
190 Greater Tern	Y for-Wennol fawr. Ysgraeon
191 Lesser Tern	Y for-Wennol bach
192 Black Tern	Ysgraeon ddu
193 Fulmar	Gwylan y graig
194 Shear-water	Pwffingen Fanaw
195 Little Petrel	Cas gan Longwr
196 Goosander	Hwyad ddanheddog
197 Lesser dun Diver	Trochydd danheddog
198 Smew	Y Lleian wen
199 Red-headed Smew	Y Lleian bengoch
200 Wild Swan	Alarch gwyllt Alarch llwyd
201 Tame Swan	Alarch
202 Goose	Gwydd
203 White-fronted wild } Goose	Gwydd wyllt
204 Bernacle	Gwyrain. Barnacl
205 Brent Goose	Barnacl fanyw
206 Eider Duck	Hwyad fwythblu
207 Velvet Duck	Hwyad felfedog
208 Scoter	Y for-Hwyad ddu
209 Tufted Duck	Hwyad goppog
210 Scaup Duck	Llygad arian
211 Golden-eye	Llygad aur
212 Shieldrake	Hwyad yr eithin. Hwyad fraith
213 Wild-duck	{ Hwyad wyllt. Garan
214 Shoveler	{ Hwyad. Cors Hwyad
	Hwyad lydanbig

ENGLISH NAMES.

BRITISH NAMES.

215 Red-breasted Shoveler	Hwyad fron-goch lydanbig
216 Pintail Duck	Hwyad gynffonfain
217 Swallow-tail'd Shiel- drake }	Hwyad gynffon gwennol
218 Pochard	Hwyad ben-goch
219 Ferruginous Duck	Hwyad frech
220 Grey-headed Duck	Hwyad benllwyd
221 Wigeon	Chwiwiaid
222 Gadwal	Y gors-Hwyad lwyd
223 Gargany	Hwyad addfain
224 Teal	Crach-Hwyad. Cor-Hwyad
225 Corvorant	Mulfran. Morfran
226 Shag	Y Fulfran-leiaf
227 Gannet	Gan. Gans

A P P E N D I X.

228 Roller	Y Rholydd
229 Nutcraker	Aderyn y cnau
230 Rose-colored Ouzel	Y Fwyalchen goch
231 Crane	Garan
232 Egret	Cryr coppog lleiaf
233 Little Bittern	Aderyn y bwn lleiaf

BRITISH ZOOLOGY.

Class II. BIRDS.

Div. I. LAND BIRDS.

Genus I. HAWKS.

Species I. The GOLDEN EAGLE.

Grand aigle royal. *Belon av.* 89.

Aquila Germana. *Gesn. av.* 168.

Aquila, aguglia, Chrysaetos.

Aldr. I. 62.

Gnesios. *Plinii lib.* 10. c. 3.

The golden eagle. *Wil. orn.* 58.

Aquila aurea, seu fulva. *Raii*

syn. av. 6.

Aquila Chrysaetos. *Lin. syst.*

125.

Orn. Faun. Suec. sp. 54.

L'Aigle doré. *Briffon av.* I. 431.

Golden eagle. *Br. Zool.* 61.

Tab. A.

Stein adler. *Kram.* 325.

THIS species is found in the mountanous parts of *Ireland*, where it breeds in the loftiest cliffs: it lays three, and sometimes four eggs, of which seldom more than two are prolific; providence denying a large increase to rapacious birds*, because they are noxious to mankind; but graciously bestows an almost boundless one on such as are of use to us. This kind of eagle sometimes migrates into *Caernarvonshire*,

* Τῶν γαμψωνύχων ὀλιγοτόκα πάντα. *Arist. hist. an.*

and there are instances, though rare, of their having bred in *Snowdon* hills; from whence some writers give that tract the name of *Creigiau'r eryrau*, or the eagle rocks; others that of *Creigiau'r eira*, or the snowy rocks: the latter seems the more natural epithet; it being more reasonable to imagine that those mountains, like *Niphates* in *Armenia*, and *Imaus* * in *Tartary*, derived their name from the circumstance of being covered with snow, which is sure to befall them near the half of every year, than from the accidental appearance of a bird on them, once only in several years.

Descr. The golden eagle weighs about twelve pounds; its length is three feet; the extent of its wings seven feet four inches; the bill is three inches long, and of a deep blue color; the cere is yellow; the irides of a hazel color: the sight and sense of smelling are very acute: *her eyes behold afar off* †: the head and neck are cloathed with narrow sharp pointed feathers, and of a deep brown color, bordered with tawny; but those on the crown of the head, in very old birds turn grey. The whole body, above as well as beneath, is of a dark brown; and the feathers on the back, are finely clouded with a deeper shade of the same: the wings, when closed, reach to the end of the tail: the quill feathers are of a chocolate color, the shafts white: the tail is of a deep brown, irregularly barred and blotched with an obscure ash color, and usually

* *Imaus*——incolarum lingua nivolum significante. *Plin. lib. 6. c. 21.*

† *Job* 39, 27. Where the natural history of the eagle is finely drawn up.

white at the roots of the feathers : the legs are yellow, short, and very strong, being three inches in circumference, and are feathered to the very feet : the toes are covered with large scales, and armed with most formidable claws, the middle of which are two inches long.

Eagles in general are very destructive to fawns, lambs, kids, and all kind of game ; particularly in the breeding season, when they bring a vast quantity of prey to their young. *Smith*, in his history of *Kerry*, relates that a poor man in that county got a comfortable subsistence for his family, during a summer of famine, out of an eagle's nest, by robbing the eaglets of the food the old ones brought, whose attendance he protracted beyond the natural time, by clipping the wings and retarding the flight of the former. It is very unsafe to leave infants in places where eagles frequent ; there being instances in *Scotland** of two being carried off by them, but fortunately,

Illæsum unguibus hæsit onus.

the theft was discovered in time, and the children restored unhurt out of the eagles nests, to the affrighted parents. In order to extirpate these pernicious birds, there is a law in the *Orkney* isles, which entitles any person that kills an eagle to an hen out of every house in the parish, in which it was killed †.

Eagles are remarkable for their longevity ; and for their power of sustaining a long abstinence from food.

* *Martin's hist. West. Isles*, 299. *Sib. hist. Scot.* 14.

† *Camden's Brit.* I. 1474. The impression of an eagle and child on the coin of the *Isle of Man*, was probably owing to some accident of this kind.

One of this species, which has now been nine years in the possession of *Owen Holland*, Esq; of *Conway*, lived thirty-two years with the gentleman who made him a present of it; but what its age was when the latter received it from *Ireland* is unknown. The same bird also furnishes a proof of the truth of the other remark, having once, through the neglect of servants, endured hunger for twenty-one days, without any sustenance whatsoever.

II. The RINGTAIL EAGLE.

Golden eagle, with a white ring about its tail. *Wil. orn.* 59. *Falco fulvus. Lin. syst.* 125.
Raii syn. av. 6. *Briffon av.* I. 420.
 White tailed eagle. *Edw.* 1. Ring-tail Eagle. *Br. Zool.* 62.

Descr. **T**HIS bird is common to the northern parts of *Europe* and *America*; that figured by Mr. *Edwards*, differing only in some white spots on the breast, from our species. It is equal in size to the precedent: the bill is of a blackish horn color; the cere yellow; the whole body is of a deep brown, slightly tinged with rust color; but what makes a long description of this kind unnecessary, is the remarkable band of white on the upper part of the tail; the end only being of a deep brown: which character it maintains through every stage of life, and in all countries where it is found. The legs are feathered to the feet: the toes yellow, the claws black. Mr. *Willoughby* gives the following very curious account of the nest of this species, p. 21.

• In

“ In the year of our Lord 1668, in the woodlands
 ‘ near the river *Derwent*, in the *Peak* of *Derbyshire*,
 ‘ was found an eagle’s nest made of great sticks,
 ‘ resting one end on the edge of a rock, the other on
 ‘ two birch trees; upon which was a layer of rushes,
 ‘ and over them a layer of heath, and upon the heath
 ‘ rushes again; upon which lay one young one, and
 ‘ an addle egg; and by them a lamb, a hare, and
 ‘ three heath poult. The nest was about two yards
 ‘ square, and had no hollow in it. The young eagle
 ‘ was black as a hobby, of the shape of a goshawk,
 ‘ of almost the weight of a goose, rough footed, or
 ‘ feathered down to the foot; having a white ring
 ‘ about the tail.’

Mr. *Willoughby* imagines, his first *pygargus*, or
 white tailed eagle, p. 61. to be but a variety of this,
 having the same characteristic mark, and differing
 only in the pale color of the head.

The antients believed, that the pebble, commonly
 called the *ætites**, or eagle stone, was formed in the
 eagle’s nest; and that the eggs could not be hatched
 without its assistance. Many absurd stories have
 been raised about this fossil, which (as it bears but an
 imaginary relation to the eagle) must be omitted in a
 zoologic work.

* If the reader’s curiosity should be excited, we refer him for
 information to *Pliny*, lib. x. c. 3. lib. xxx. c. 21. to *Boetius de*
gemmis, p. 375. to Dr. *Woodward’s* catalogue of fossils, vol. i. p. 53.
 c. 268. 269. and *Grew’s Rarities*, p. 297.

III. The SEA EAGLE.

- Bein-brecher, *Ossifraga*, Meer- *Raii syn. av.* 7.
 adler, Fisch-arn, *Haliaeetus*. Sea eagle. *Dale's Harwich*, 396.
Gesner av. 201. 203. *Martin's hist. West. isles* 70.
Haliaeetus. Turneri. Le grand aigle de mer, *Briffon*
Augusta barbata, Ossifraga. Aldr. *av. i.* 437.
av. i. 118. Sea eagle. *Br. Zool.* 63.
Haliaeetus. Plinii lib. 10. c. 3. *Falco ossifragus. Lin. syst.* 124.
Sib. hist. Scot. 14. Gaase orn. *Brunnich* 13.
 Sea eagle, or osprey. *Wil. orn.* 59.

THIS species is found in *Ireland*, and several parts of *Great-Britain*; the specimen we took our description from, was shot in the county of *Galway*; Mr. *Willoughby* tells us there was an aery of them in *Whinfield-park, Westmoreland*; and the eagle soaring in the air, with a cat in its talons, which *Barlow* drew from the very fact which he saw in *Scotland**, is of this kind. The cat's resistance brought both animals to the ground, when *Barlow* took them up; and afterwards caused the event to be engraved in the thirty-sixth plate of his collection of prints. *Turner* says, that in his days, it was too well known in *England*, for it made horrible destruction among the fish; he adds, that fishermen were fond of anointing their baits with the fat of this bird, imagining that it had a peculiar alluring quality: they were superstitious enough to believe that whenever the *sea eagle* hovered over a piece of water, the fish, (as if charmed) would rise to the surface with their bellies upwards;

* Mr. *Walpole's* catalogue of engravers, p. 49.

and in that manner present themselves to him. No writer since *Clusius* has described the sea eagle: though no uncommon species, it seems at present to be but little known; being generally confounded with the golden eagle, to which it bears some resemblance. The colors of the head, neck and body, are the same Descr. with the latter; but much lighter, the tawny part in this predominating: in size it is far superior: the bill is larger, more hooked, and more arched; underneath grow several short, but strong hairs or bristles, forming a sort of beard. This gave occasion to some writers to suppose it to be the *aquila barbata* or bearded eagle of *Pliny*. The interior sides, and the tips of the feathers of the tail, are of a deep brown; the exterior sides of some are ferruginous, in others blotched with white. The legs are yellow, strong and thick; and feathered but little below the knees; which is an invariable specific difference between this and our first species. This nakedness of the legs is besides no small convenience to a bird who preys among the waters. The claws are of a deep and shining black, exceeding large and strong, and hooked into a perfect semicircle.

All writers agree, that this eagle feeds principally on fish; which it takes as they are swimming near the surface*, by darting itself down on them; not by diving or swimming, as several authors have invented, who furnish it for that purpose with one webbed foot

* *Martin*, speaking of what he calls the great eagles in the western isles, says, that they fasten their talons in the back of the fish, commonly of salmon, which are often above water, or on the surface.

to swim with, and another divided foot to take its prey with. *Pliny*, with his usual elegance, describes the manner of its fishing. *Supereſt haliaetos, clariffima oculorum acie, librans ex alto ſeſe, viſoque in mari piſce, præceps in eo ruens, et diſcuſſis pectore aquis rapiens.*

IV. The O S P R E Y.

Une Orfraye. *Belon. av. 96.*
Fifch-adler, Maſſwy, Aquila anataria, Clanga, Flanga, Percnos, Morphnos. *Gefner. av. 196.*

Haliaetus, ſeu aquila marina. *Gefner av. 804.*

Balbuſhardus. *Turneri.*

Auguiſta piumbina, Aquilaſtro, Haliaetus, ſeu Morphnos. *Aldr. av. I. 105. 114.*

Haliaetus. *Caii opuſc. 85.*

Bald Buzzard. *Wil. orn. 69.*

Bald buzzard, or ſea eagle. *Raii ſyn. av. 16.*

Fifhing hawk. *Cateſby's Carol. I. Tab. 2.*

Falco cyanopus. *Klein Stem. Tab. 8.*

Falco Haliaetus. *Lin. ſyſt. 129.*

Blafot, Fiſk-orn. *Faun. Suec. ſp. 63.*

Aigle de mer. *Briffon av. I. 440. Tab. 34.*

The Osprey. *Br. Zool. 63. Tab. A. 1.*

Fiſk-oern. *Brunnich, p. 5.*

MR. *Ray* places this bird among the hawks, inſtead of the eagles, on a ſuppoſition that *Mr. Willoughby* had exceeded in his account of its weight; but as we had an opportunity of confirming the words of the latter, from one of this ſpecies juſt taken, we here reſtore it to the aquiline rank, under the name of the Osprey: which was the name it was known by in *England* above one hundred and fixty years ago; as appears by *Dr. Kay*, or *Caius's* deſcription of it, who alſo calls it an eagle.

This bird haunts rivers, lakes, and the ſea-ſhores. It builds its neſt on the ground among reeds, and lays three or four white eggs of an elliptical form; rather
leſs

less than those of a hen. It feeds chiefly on fish*, taking them in the same manner as the sea eagle does, by precipitating itself on them, not by swimming; its feet being formed like those of other birds of prey, for the left is not at all palmated, as *Linnaeus*, copying the errors of antient writers, asserts it is†. The *Italians* compare the violent descent of this bird on its prey, to the fall of lead into water, and call it, *Augusta piumbina*, or the *leaden eagle*.

The bird here described was a female; its weight Descr. was sixty-two ounces: the length twenty-three inches: the breadth five feet four inches: the wing when closed reached beyond the end of the tail: that, as in all the hawk kind, consists of twelve feathers; the two middle feathers were dusky: the others barred alternately on their inner webs with brown and white: on the joint of the wing next the body was a spot of white: the quill feathers of the wings were black: the secondary feathers and the coverts dusky, the former having their interior webs varied with brown and white. The inner coverts white spotted with brown. The head small and flat, the crown white marked with oblong dusky spots. The cheeks, chin, belly and breast white, the last spotted with a dull yellow: from the corner of each eye is a bar of brown that extends along the sides of the neck pointing towards the wing. The legs were very short, thick and strong: their length being only two inches and a quarter; their circumference two inches: their color a pale blue; the outward toe turns easily back-

* *Turner* says it preys also on coots, and other water fowl.

† *Pes sinister subpalmatus. Lin. syst. 91. No. 21.*

ward, and what merits attention, the claw belonging to it is larger than that of the inner toe; in which it differs from all other birds of prey; but seems peculiarly necessary to this kind, for the better securing its slippery prey: the roughness of the soles of the feet contributes to the same end. The difference in weight, and other trifling particulars, makes us imagine that the bird Mr. *Willoughby* saw was a male; as the females of all the hawk kind, are larger, stronger, and fiercer than the males; the defence of their young, and the providing them food, resting chiefly on them.

These are the only species of eagles that we can, from our own knowledge, pronounce to be *British*; but, from the authority of Sir *Robert Sibbald*, and some other writers, we shall venture to add the figure and description of the bird we suppose to be their *Erne*. The account and drawing is taken from a stuffed skin sent us from *Norway*, which we believe to have been the same with the eagle that Sir *Robert* makes synonymous to his species.

Species

V. The E R N E. Tab. 3.

Pygargus, or white tailed eagle. Pygargus hinnularius, an *Erne*,
Wil. orn. 61. *Sib. Scot.* 14.
Raii syn. av. 7. Vultur albiulla. *Lin. syst.* 123.
 Gamsen geyer. *Kram.* 326.

IT is inferior in size to the golden eagle: the beak, Defect.
 cere and irides are of a very pale yellow; the space
 between that and the eyes bare, and of a bluish color.
 The head and neck are of a pale ash color dashed
 with red, in some lighter, in others darker. The body
 and wings of a deep brown, the quill feathers very
 dark: the tail white: the legs feathered but little
 below the knees, and of a very light yellow.

The bill of this is rather straiter than is usual in the
 eagle, which seems to have induced *Linnaeus* to place
 it among the *vultures*; but it can have no claim to be
 ranked with that genus, for the *pygargus* is wholly
 feathered; whereas, the characteristical mark of the
 vulture is, that the head and neck are either quite
 bare, or only covered with down.

Besides this species, *Sibbald** mentions another kind
 found in *Scotland*, under the name of *melainætos*, or the
 black eagle. *Martin*† describes the same species,
 which he says is small, but very destructive to deer;
 it will seize the deer between the horns, and by con-
 stantly beating it about the eyes with its wings, soon
 makes a prey of the harassed animal. The same
 writer speaks also of another kind of eagle of a large

* *Hist. Scot.* 14.† *Hist. West. Isles*, 37. 70.

size and grey color, a great destroyer of sheep, lambs and fawns. Whether this is our *Erne*, we cannot determine from so obscure a description; but we flatter ourselves that some commentator will arise to elucidate the works of these *Scotish* naturalists, who have dealt out their knowledge with so sparing a hand, as to excite without satisfying our curiosity.

F A L C O N R Y.

Falconry was the principal amusement of our ancestors: a person of rank scarce stirred out without his hawk on his hand; which, in old paintings, is the criterion of nobility. *Harold*, afterwards king of *England*, when he went on a most important embassy into *Normandy*, is painted embarking with a bird on his fist, and a dog under his arm*: and in an antient picture of the nuptials of *Henry VI.* a nobleman is represented in much the same manner†; for in those days, *It was thought sufficient for noblemen's sons to winde their horn and to carry their hawk fair, and leave study and learning to the children of mean people‡.* The former were the accomplishments of the times; *Spenser* makes his gallant *Sir Tristram* boast,

Ne is there hauke which mantleth her on pearch,
Whether high towring, or accoasting low,
But I the measure of her flight doe search,
And all her pray, and all her diet know ||.

In short, this diversion was, among the old *English*,

* *Monfaucon monumens de la monarchie françoise*, I. 372.

† *Mr. Walpole's anecdotes of painting*, I. 33.

‡ *Biog. Brit.* article *Caxton*.

|| *Book VI. Canto 2.*

the pride of the rich, and the privilege of the poor, no rank of men seems to have been excluded the amusement: we learn from the *book of St. Albans**, that every degree had its peculiar hawk, from the emperor down to the *holy water clerk*. Vast was the expence that sometimes attended this sport; in the reign of *James I.* Sir *Thomas Monson* † is said to have given a thousand pounds for a cast of hawks: we are not then to wonder at the rigor of the laws that tended to preserve a pleasure that was carried to such an extravagant pitch. In the 34th of *Edward III.* it was made felony to steal a hawk: to take its eggs, even in a person's own ground, was punishable with imprisonment for a year and a day; besides a fine at the king's pleasure: in queen *Elizabeth's* reign the imprisonment was reduced to three months; but the offender was to find security for his good behaviour for seven years, or lie in prison till he did. Such was the enviable state of the times in *old England*: during the whole day our gentry were given to the fowls of the air, and the beasts of the field: in the evening they celebrated their exploits with the most abandoned and brutish sottishness: at the same time the inferior rank of people, by the most unjust and arbitrary laws, were liable to capital punishments, to fines, and loss of liberty, for destroying the most noxious of the feathered tribe.

Our ancestors made use of several kinds of native hawks; though that penetrating and faithful natura-

* A treatise on hunting, hawking and heraldry, printed at *St. Albans* by *Caxton*, and attributed to *Dame Julian Barnes*.

† Sir *Ant. Weldon's* court of K. *James*. 105.

list Mr. Ray, has left us only the bare name of a falcon in his list of the *English* birds, without mentioning the species: our own enquiries have not been attended with any great success; our discoveries only amounting to three kinds, to be described hereafter; but except the *Lanner*, none seem to have been noted among the *British* birds by any of our countrymen. The Falcon, Goshawk, Lanner, Sacre, and the Gyrfalcon* are mentioned as natives, both in our old game law, and by several of our naturalists. Camden† also conjectures the species which Henry II. sent for every year out of *Pembrokeshire*, to have been the *Peregrine Falcon*; but notwithstanding, we do not find their names in Mr. Ray's list, (which is our authority for things not seen by ourselves) yet we doubt not but they still exist in these kingdoms, particularly in *Scotland*, which produces many birds in common with *Norway*; this we discovered in a large collection of those of *Scandinavia*, presented by Mr. *Fleischer* of *Copenhagen*: among which were some of the *falcon* tribe that are ranked as *British* by our old writers. We may here take notice that the *Norwegian* breed was, in old times, in high esteem with our countrymen: they were thought bribes worthy a king. *Jeoffrey Fitzpierre* gave two good *Norway* hawks to king *John*, to obtain for his friend the liberty of exporting 100 weight of cheese: and *John*, the son of

* *Burn's justice. Carew's hist. Cornwall, 25. Sib. hist. Scot. 14. Merret's pinax, 170.*

† P. 758.—*Girald. Cambrensis, 156.*—*Scotland, the Western Isles, the Orkneys, and the Isle of Man, have been much celebrated for their fine breed of hawks.*



Paulou penx^t

Mazell fec^t

*Paillon p.m.**Mazell fec.*

Ordgar, fined to *Richard I.* in one *Norway* hawk, to gain the royal interest in a certain affair *.

Among the falcons, we owe to the generosity of *Mr. Fleischer*, were two which we believe to be also natives of our own country ; and these we venture to describe and figure in this work as such, on the authorities above mentioned.

VI. The GYRFALCON. *Tab. 4.*

Le Gerfault. Belon av. 94.

Gyrfalco. Aldr. av. I. 243.

Jer-falcon. Wil. orn. 78.

Gyrfalco. Raii syn. av. 13.

F. Islandus albus. Brunnich 7. 8.

Le Gerfault. Brisson av. I. 370.

Sib. Scot. 14.

Charlton Ex. 317.

THIS elegant species is not much inferior in size *Descr.* to the *Osprey*. The bill is very much hooked and yellow ; the throat of a pure white : the whole plumage is of the same color, but marked with dusky lines, spots or bars. The head, breast and belly with narrow lines, thinly scattered and pointing down. The wings with large heart-shaped spots ; the middle feathers of the tail with a few bars : the feathers on the thighs are very long, and of a pure white ; the legs yellow, and feathered a little below the knees. This kind is sometimes found quite white ; it was a bird in high esteem when falconry was in vogue, and used for the noblest game, such as cranes and herons.

This is the *Gyrfalco* of all the ornithologists except *Linnaeus*, whose bird we are totally unacquainted with : though he gives several of their synonyms, his description differs entirely from each of them.

* *Madox's Antiq. Excheq. 325. 332.*

VII. The PEREGRINE FALCON.

Belon av. 116.*Falco peregrinus niger. Aldr.**av.* I. 239.Blue backed falcon. *Charl. Ex.* 73.Ditto. *Br. Zool. tab.* A *. 5.*Sparviere pellegrino femmina.**Lorenzi av. tab.* 24.*Le Faucon pelerin. Briffon av.* I.

341.

THIS species was shot in *Northamptonshire*, and communicated to us by Mr. *Grace*, of *Throgmorton Street*.

Descr. In size it was equal to the moor-buzzard: the bill strong, short, and very much hooked, armed near the end of the upper mandible with a very sharp process: blue at the base, black at the point.

The feathers on the forehead were whitish: the crown of the head black mixed with blue: the hind part of the neck black: the back, scapulars, and covert of the wings, elegantly barred with deep blue and black. The quill feathers dusky, marked with elliptical white spots placed transverse: the tail barred with numerous strokes of dusky and blue: the throat white: the forepart of the neck, and upper part of the breast white slightly tinged with yellow, the last marked with a few small dusky lines pointing downwards. The rest of the breast, the belly, thighs and vent feathers, white inclining to grey, and crossed with dusky strokes pointed in their middle. The tail consists of feathers of equal length, finely and frequently barred with blue and black. The legs short and yellow.

According to Signor *Lorenzi*, this bird is the female

male peregrine falcon: he has figured the male in his twenty-third plate, and made all its colors darker, and the upper part of the body and the head almost black. The fore part of the neck, the breast and belly agree with the female.

We received, a few years ago, a young bird of this species from the rocks of *Llandidno* in *Caernarvonshire*. That promontory has been long famed for producing a generous breed of falcons, as appears by a letter extant in *Gloddaeth* library, from the lord treasurer *Burleigh* to an ancestor of Sir *Roger Mostyn*, in which his lordship thanks him for a present of a fine cast of hawks taken on those rocks, which belong to the family.

VIII. The GREY FALCON.

Br. Zoology 65.

THIS kind was shot near *Halifax* 1762, and the following account transmitted to us by Mr. *Bolton*, of *Worly-clough*. This bird was about the size of a raven: the bill was strong, short, much hooked, and of a bluish color: the cere, and edges of the eyelids yellow: the irides red: the head was small, flattened at the top; the fore part of a deep brown; the hind part white: the sides of the head and throat were creme colored: the belly white, marked with oblong black spots: the hind part of the neck, and the back were of a deep grey: the wings were very long, and when closed reached beyond the train: the

L

first

first of the quill feathers were black, with a white tip; the others were of a bluish grey, and their inner webs irregularly spotted with white: the tail was long, and wedge shaped; the two middle feathers being the longest, were plain, (the color not mentioned) the rest spotted: the legs were long, naked, and yellow.

IX. The L A N N E R.

The Lanner. *Wil. orn.* 82.
Lanarius. Raii syn. av. 15.

Falco Lanarius. Lin. syst. 129.
Faun. Suec. sp. 62.

THIS species breeds in *Ireland*: the bird our description is taken from, was caught in a decoy in *Lincolnshire*, pursuing some wild ducks under the nets, and communicated to us by *Taylor White Esq*; under the name of the *Lanner*.

Descr. It was less than the buzzard. The cere was of a pale greenish blue: the crown of the head of a brown and yellow clay color: above each eye, to the hind part of the head, passed a broad white line; and beneath each, a black mark pointing down: the throat white: the breast tinged with dull yellow, and marked with brown spots pointing downwards: the thighs and vent spotted in the same manner: back and coverts of the wings deep brown, edged with a paler: quill feathers dusky: the inner webs marked with oval rust colored spots: the tail was spotted like the wings.

The legs short and strong, and of a bluish cast, which *Mr. Willoughby* says, are the characters of that bird.

bird. We are here to observe, that much caution is to be used in describing the hawk kind, no birds being so liable to change their colors the two or three first years of their lives: inattention to this has caused the number of hawks to be multiplied far beyond the reality: the marks to be attended to as forming the characters of the species, are those on the quill feathers and the tail, which do not change; another reason for this needless increase of the species of this tribe of birds, is owing to the names given to the same kinds in different periods of their lives, by the writers on falconry, which ornithologists have adopted and described as distinct kinds: even Mr. Ray has been obliged to copy them. The falcon, the falcon gentle, and the haggard, are made distinct species, whereas they form only one: this is explained by a *French* author, who wrote in the beginning of the last century, and effectually clears up this point; speaking of the falcon, he tells us, “ S’il est prins en
“ *Juin, Juillet & Aoust*, vous le nommerez *Gentil*:
“ si en *Septembre, Octobre, Novembre ou Decembre*,
“ vous le nommerez *Pellerin ou Passager*: s’il est
“ prins en *Janvier, Feburier et Mars*, il sera nommé
“ *Antenere*: et apres estre muë une fois et avoir
“ changé son cerceau, non auparavant, vous le direz
“ *Hagar*, mot *Hebrieu*, qui signifie *estranger* *.

* *La fauconnerie de Charles d’Arcussia seigneur d’Esparron*, p. 14.
5^{me} edit. Paris 1607.

X. The G O S H A W K. *Tab. 5.**Autour. Belon av. 112.**Raii syn. av. 18.**Gesner av. 5.**L'Autour, Astur. Brisson av. i.**Aldr. av. i. 181.*

317.

*Sib. Scot. 15.**Astore. Zinan. 87.**Goshawk, accipiter palumbarius.**Falco palumbarius. Lin. syst. 130.**Wil. orn. 85.*

Descr.

THE goshawk is larger than the common buzzard, but of a longer and more elegant form. The bill is blue towards the base, black at the tip: the cere a yellowish green: over each eye is a white line; and on the side of the neck is a bed of broken white: the head, hind part of the neck, back and wings are of a deep brown color: the breast and belly white, beautifully marked with numerous transverse bars of black and white: the tail is long, of a brownish ash color, marked with four or five dusky bars placed remote from each other.

This species and the sparrow hawk, are distinguished by Mr. *Willoughby* by the name of short winged hawks, because their wings, when closed, fall short of the end of the tail.

The goshawk was in high esteem among falconers, and flown at cranes, geese, pheasants and partridges.



XI. The K I T E.

Le Milan royal. *Belon av.* 129.Milvus. *Gesn. av.* 609.Glede, Puttok, Kyte *Turneri.*Milvio, Nichio. *Ald. av.* i. 201.Kite, or Glead. *Wil. orn.* 74.Milvus. *Plinii lib. x. c.* 10.*Raii syn. av.* 17.Rother milon. *Kram.* 326.Falco milvus. *Lin. syst.* 126.Glada. *Faun. Suec. sp.* 57.Le Milan royal. *Briffon av.* i. 414.*Tab.* 32.Nibbio. *Zinan.* 82.The Kite. *Br. Zool.* 66. *Tab.* A 2.Glente. *Brunnich* 3.

THE kite generally breeds in large forests, or wooded mountanous countries: it lays two, or at most three eggs: which, like those of all other birds of prey, are much rounded, and very blunt at the smaller end; they are white of color, and spotted with a dirty yellow: its motion in the air distinguishes it from all other birds; being so smooth and even, as to be scarce perceptible; sometimes it will remain quite motionless for a considerable space; at others glides through the sky, without the least apparent action of its wings: from thence is derived the old name of Glead, or Glede, from the *Saxon* Glida. Lord *Bacon* observes, that when kites fly high, it portends fair and dry weather. Some have supposed these to be birds of passage; but in *England* they certainly continue the whole year.

The tail of this kind is sufficient to distinguish it from all other *British* birds of prey, being forked. *Pliny* thinks that the invention of the rudder arose from the observation men made of the various motions of that part, when the kite was steering through

the air *. Certain it is that the most useful arts were originally copied from animals; however we may now have improved upon them. Still in those nations which are in a state of nature, (such as the *Samoieds* and *Esquimaux*) their dwellings are inferior to those of the beavers, which those scarcely human beings but poorly copy.

Descr. The weight of this species is forty-four ounces: the length twenty-seven: the breadth five feet one inch: the bill is two inches long, and very much hooked at the end. The cere yellow: the head and chin are of a light grey, in some, white, marked with oblong streaks of black: the neck and breast are of a tawny red, but the middle of the feathers black. On the belly and thighs, the spots are fewer, and under the tail they almost vanish. The back is brown. The five first quill feathers are black: the inner webs of the others blotched with white: the coverts of the wings are varied with tawny black and white: the tail is forked, and of a tawny red: the outmost feather on each side of a darker hue than the rest: the thighs are covered with very long feathers: the legs are yellow and strong: the irides of a pale yellow.

These birds differ in their colors. We have seen a beautiful variety shot in *Lincolnshire* that was entirely of a tawny color.

* *Iidem videntur artem gubernandi docuisse caudæ flexibus. Lib. 10. c. 10.*

XII. The Common BUZZARD.

Le Buse, ou Bufard. <i>Belon av.</i>	Common Buzzard, or Puttock.
100.	<i>Wil. orn.</i> 70.
Buteo. <i>Gesner. av.</i> 46.	Wald Geyer. <i>Kram.</i> 329.
Busharda <i>Turneri.</i>	Falco buteo. <i>Lin. syst.</i> 127.
Buteo, feu Triorches. <i>Ald. av.</i> I.	Quidfogel. <i>Faun. Suec. sp.</i> 60.
190.	La Buse. <i>Briffon av.</i> I. 406.
Triorches, Buteo. <i>Plinii lib.</i> 10.	Pojana. <i>Zinan.</i> 85.
c. 7.	<i>Br. Zool.</i> 66. <i>Tab. A.</i> 3.
<i>Raii syn. av.</i> 16.	Oerne Falk. <i>Brunnich</i> p. 5.

THIS bird is the commonest of the hawk kind we have in *England*. It breeds in large woods, and usually builds on an old crow's nest, which it enlarges and lines with wool, and other soft materials: it lays two or three eggs, which are sometimes wholly white; sometimes spotted with yellow. The cock buzzard will hatch and bring up the young, if the hen is killed *. The young consort with the old ones for some little time after they quit the nest; which is not usual with other birds of prey, who always drive away their brood as soon as they can fly. This species is very sluggish and inactive; and is much less in motion than other hawks, remaining perched on the same bough for the greatest part of the day, and is found at most times near the same place. It feeds on birds, rabbits, moles and mice; it will also eat frogs, earth-worms and insects. This bird is subject to some variety in its colors: we have

Descr.

* *Ray's Letters* 352.

seen some whose breast and belly were brown, and only marked cross the craw with a large white crescent: usually the breast is of a yellowish white, spotted with oblong rust-colored spots, pointing downwards: the chin ferruginous: the back of the head and neck, and the coverts of the wings are of a deep brown, edged with a pale rust color: the scapular feathers brown; but white towards their roots: the middle of the back is covered only with a thick white down: the ends of the quill feathers are dusky: their lower exterior sides ash-colored: their interior sides blotched with darker and lighter shades of the same: the tail is barred with black and ash-color: the bar next the very tip is black, and the broadest of all; the tip itself of a dusky white. The irides are white, tinged with red. The weight of this species is thirty-two ounces: the length twenty-two inches; the breadth fifty-two.

XIII. The Honey BUZZARD.

- | | |
|--|--|
| Le Goiran, ou Bondrée. <i>Belon</i> | Slag-hok. <i>Faun. Suec. sp.</i> 65. |
| <i>av.</i> 101. | La Bondrée. <i>Briffon av.</i> i. 410. |
| <i>Ald. av.</i> i. 191. | <i>Zinan.</i> 84. |
| Honey-Buzzard. <i>Wil. orn.</i> 72. | <i>Br. Zool.</i> 67. <i>Tab. A.</i> 4. |
| <i>Raii syn. av.</i> 16. | <i>A*.</i> 4. |
| Frosch-geyerl. <i>Kram.</i> 331. | Muse-Hoeg, Muse-Baage, <i>Brun-</i> |
| Falco Apivorus. <i>Lin. syst.</i> 130. | <i>nich</i> p. 5. |

THE weight of this species is thirty ounces: the length twenty-three inches: the breadth fifty-two: the bill and cere are black; the latter much wrinkled: the irides of a fine yellow: the crown of the head ash-colored: the neck, back, scapulars, and covert feathers of the wings, are of a deep brown: the chin is white; the breast and belly of the same color, marked with dusky spots pointing downwards. The tail is long, of a dull brown color, marked with three broad dusky bars; between each of which are two or three of the same color, but narrower: the legs are short, strong, and thick: the claws large and black. Descr.

After the publication of the *Zoology*, Mr. *Plymly* favored us with a variety of this species, engraved in the additional plates of the *Zoology*, supposed to be a female, being shot on the nest: it was entirely of a deep brown color, but had much the same marks on the wings and tail as the male; and the head was tinged with ash color. There were two eggs in the nest, blotched over with two reds something darker than those of the kestrel; though Mr. *Willoughby* says they are of a different color: that naturalist informs us, that this bird builds its nest with small twigs, which
it

it covers with wool; that its eggs are cinereous, marked with darker spots: as he found the combs of wasps in the nest, he gave this species the name of the honey buzzard: he adds, that it feeds on the erucæ of those insects, on frogs, lizards, &c. and that it runs very swiftly like a hen.

XIV. The Moor BUZZARD.

- | | |
|---|---|
| Le fau-Perdrieux. <i>Belon av.</i> 114. | Falco æruginosus. <i>Lin. syst.</i> 91. |
| Circus Accipiter. <i>Gesner av.</i> 49. | Hoens-tjuf. <i>Faun. Suec. sp.</i> 66. |
| Milvus æruginosus. <i>Ald. av.</i> i. | Pojana rossa. <i>Zinan.</i> 83. |
| 203. | Le Bufard de marais. <i>Brissou</i> |
| Moor Buzzard. <i>Wil. orn.</i> 75. | <i>av.</i> i. 401. |
| <i>Raii syn. av.</i> 17. | Hoense Hoeg. <i>Brunnich p.</i> 5. |
| Brauner rohr Geyer. <i>Kram.</i> 323. | <i>Br. Zool.</i> 67. <i>Tab. A.</i> 5. |

THIS species frequents moors, marshy places, and heaths; it never soars like other hawks; but commonly sits on the ground, or on small bushes: it makes its nest in the midst of a tuft of grass or rushes: we have found three young ones in it, but never happened to meet with the eggs: it is a very fierce and voracious bird, and is a great destroyer of rabbits, young wild ducks, and other water fowl.

Descr. Its usual weight is twenty ounces: the length twenty-one inches: the breadth four feet three inches: the bill is black, cere yellow; irides of the same color: the whole bird, head excepted, is of a chocolate brown, tinged with rust color: on the head is a large yellowish spot; we have seen some birds of this kind with their head and chin entirely white; the others again have a whitish spot on the coverts of

* In some places it is called the *duck hawk*.

their

their wings; but these are only to be deemed varieties. The uniform color of its plumage, and the great length and slenderness of its legs, distinguishes it from all other hawks.

XV. The HEN-HARRIER. *The Male.*

The RING-TAIL. *The Female.*

Jan le Blanc, ou Oyseau Saint Martin. <i>Belon av. 103. the male.</i>	<i>Wil. orn. 70.</i> <i>Raii syn. av. 17.</i> <i>Blue Hawk. Edw. 225. the male.</i>
Un Autre Oyseau Saint Martin. <i>Belon av. 104. the female.</i>	<i>Falco Pygargus, Falco Cyaneus, le Faucon a Collier. Brisson av. i. 345. the fem.</i>
Subbuteo. <i>Gesner av. 48.</i>	<i>Le Lanier cendré. Brisson av. i. 365. the male.</i>
Subbuteo <i>Turneri. the female.</i>	<i>Br. Zool. 68. Tab. A. 6. A. 7.</i>
Rubetarius. <i>the male.</i>	<i>Brunnich 14.</i>
Lanarius albus. <i>Aldr. av. i. 197.</i>	

THE male, or the hen-harrier, weighs about twelve ounces : the length is seventeen inches; the breadth three feet three inches : the bill is black : cere, irides, and edges of the eye-lids yellow : the head, neck, back, and coverts of the wings, are of a bluish grey : the back of the head white, spotted with a pale brown : the breast, belly, and thighs, are white : the former marked with a few small dusky streaks : the scapular feathers are of a deep grey, inclining to dusky : the two middle feathers of the tail are entirely grey ; the others only on their exterior webs ; the interior being white, marked with some

Descr.

some dusky bars: the legs are yellow, long and slender.

Descr. The female weighs sixteen ounces; is twenty inches long; and three feet nine inches broad: on the hind part of the head, round the ears to the chin, is a wreath of short stiff feathers of a dusky hue, tipped with a reddish white: on the top of the head, and the cheeks, the feathers are dusky, bordered with rust color; under each eye is a white spot: the back is dusky; the rump white, with oblong yellowish spots on each shaft; the tail is long, and marked with alternate bars of dusky and tawny; of which the dusky bars are the broadest; the breast and belly are of a yellowish brown, with a cast of red, and marked with oblong dusky spots: but we have met with one specimen that had those parts entirely plain. The legs in color and shape resemble those of the male. These birds fly very low, skimming the surface of the ground; and are very destructive to our young poultry: they lay four eggs, besmeared over with red, a little white appearing here and there.

XVI. The K E S T R I L.

La Cresserelle. *Belon av.* 125.*Gesner av.* 54.Kistrel, Kastrel, or Steingal
*Turneri.**Aldr. av.* 188.The Kestrel, Stannel, Stonegall,
Windhover. *Wil. orn.* 84.*Raii syn. av.* 16.La Cresserelle. *Briffon av.* i. 393.Windwacht, Rittlweyer, Wan-
nenweher. *Kram.* 331.*Falco tinnunculus. Lin syst.* 127.Kyrko-Falk. *Faun. Suec. sp.* 61.Kirke-Falk. *Brunnich* 4. 5.Gheppio, Acertello, Gavinello.
Zinan. 88.*Br. Zool.* 68. plate A.

THE male of this beautiful species weighs only Descr.
six ounces and a half : its length is fourteen
inches : the breadth two feet three inches : its colors
at once distinguish it from all other hawks : the
crown of the head, and the greater part of the tail,
are of a fine light grey, the lower end of the latter is
marked with a broad black bar : the tip is white : the
back and coverts of the wings are of a purplish red,
elegantly spotted with black : the interior sides of the
quill feathers are dusky, deeply indented with white.

The female weighs eleven ounces : the color of the
back and wings are far less bright than those of the
male : it differs too in the colors of the head and tail ;
the former being of a pale reddish brown, streaked
with black ; the latter of the same color, marked
with numerous transverse black bars : the breast is of
a dirty yellowish white ; and the middle of each
feather has an oblong dusky streak, pointing down-
wards.

The kestrel breeds in the hollows of trees, in the
holes of high rocks, towers and ruined buildings : it
lays

lays four eggs, of the same color with those of the preceding species : its food is field mice, small birds and insects; which it will discover at a great distance. This is the hawk that we so frequently see in the air fixed in one place, and as it were fanning it with its wings; at which time it is watching for its prey. When falconry was in use in *Great-Britain*, this kind was trained for catching small birds and young partridges.

XVII. The H O B B Y.

Le Hobreau. *Belon av.* 118.

Gesner av. 75. *fæm.*

Hobbia Turneri.

Æsalon, Aldr. av. i. 187.

The Hobby. *Wil. orn.* 83.

Le Hobreau, *Dendro-falco. Bris-*

son av. i. 375.

Raii syn. av. 15.

Falco subbuteo. Lin. syst. 127.

Faun. Suec. sp. 59.

Barletta. Lorenzi av. 45.

Laerke-Falk. Brunnich 10. 11.

Br. Zool. 69. plate A. 9.

THIS bird was also used in the humbler kind of falconry; particularly in what was called daring of larks: the hawk was cast off; the larks aware of their most inveterate enemy, are fixed to the ground through fear; which makes them a ready prey to the fowler, by drawing a net over them. Mr. *Willoughby* says that the hobby is a bird of passage; but that it breeds in *England*. The male weighs seven ounces: the length is one foot; the breadth two feet three inches: the crown of the head and back are of a deep bluish black: the hind part of the head is marked with two pale yellow spots; each cheek with a large black one pointing downwards: the coverts of the wings are of the same color with

with the back, but slightly edged with rust color: the interior webs of the secondary and quill feathers, are varied with oval transverse reddish spots: the two middle feathers of the tail are entirely of a deep dove color: the others are barred on their interior sides with rust color, and tipped with a dirty white. The spots on the breast of the female are of a higher color than those of the male: it is greatly superior in size, its legs have a tinge of green, in other respects it resembles the former.

XVIII. The SPARROW HAWK.

L'Espervier. *Belon av.* 121.

Gesner av. 51.

Sparhauc *Turneri.*

Accipiter fringillarius, sparviero.

Aldr. av. i. 183.

Wil. orn. 86.

L'Epervier, accipiter. *Briffon*

av. i. 310.

Raii syn. av. 18.

Kram. 332.

Falco nisus. Lin. syst. 130.

Sparfhoek. *Faun. Suec. sp.* 69.

Spurre-hoeg. *Brunnich p.* 5.

Br. Zool. 69. plate A. 10.

A. 11.

THE difference between the size of the male and female sparrow hawks, is more disproportionate than in most other birds of prey; the former sometimes scarce weighing five ounces, the latter nine ounces: the length of the male is about twelve inches, the breadth twenty-three: the female is fifteen inches long; in breadth twenty-six. Descr.

These birds, as well as the hawk kind in general, vary greatly in their colors; in some, the back, head, coverts of the wings and tail, are of deep bluish grey; in others of a deep brown, edged with a rusty red: the

quill feathers are dusky, barred with black on their exterior webs, and spotted with white on the lower part of their inner webs : the tail is of a deep ash color marked with five broad black bars, the tip white : the breast and belly are of a whitish yellow, adorned with transverse waved bars ; in some of a deep brown color, in others orange : the cere, irides, and legs yellow. The colors of the female differ from those of the male : the head is of a deep brown ; the back, and coverts of the wings, are dusky mixed with dove color ; the coverts of the tail of a brighter dove color ; the waved lines that cross the breast, are more numerous than those on that of the male ; and the breast itself of a purer white.

This is the most pernicious hawk we have ; and makes great havoc among pigeons, as well as partridges. It builds in hollow trees, and large ruins, and in high rocks : lays four white eggs, encircled near the blunter end with red specks. Mr. *Willoughby* places this among the short-winged hawks ; or such whose wings, when closed, fall short of the end of the tail.

XIX. The M E R L I N *.

L'Esmerillon. *Belon av.* 118.Æsalon. *Gesner av.* 44.Merlina *Turneri.*Smerlus, Smerillus, *Aldr. av.* i.

187.

Wil. orn. 85.*Raii syn. av.* 15.L'Emerillon. *Briffon av.* i. 382.Smerlio, o Smeriglio. *Lorenzi av.**tab.* 18. 19.*Br. Zool.* 70. plate A. 12.

THE Merlin weighs near five ounces and a half: *Descr.* its length is twelve inches, its breadth twenty-five. The bill is of a bluish lead color: the cere of a lemon color: the irides very dark, almost black: the head is ferruginous, and each feather is marked with a bluish black streak along the shaft: the back and wings are of a deep bluish ash color, adorned with ferruginous streaks and spots, and edged with the same: the quill feathers are almost black, marked with reddish spots: the under coverts of the wings brown, beautifully marked with round white spots: the tail is five inches long, crossed with alternate bars of dusky and reddish clay color: on some of the the feathers of the same bird are thirteen, on some fifteen: the breast and belly are of a yellowish white, marked with oblong brown spots pointing downwards: the legs yellow: the wings when closed reach within an inch and a half of the end of the tail. This and the preceding kind were often trained for hawking: and this species, small as it is, was inferior to none in point of spirit: it was used for taking partridges, which it would kill by a single

* Merularius; quia merulas insectatur. *Skinner.*

stroke on the neck. The Merlin flies low, and is often seen along roads sides, skimming from one side of the hedges to the other, in search of prey.

It was known to our *British* ancestors by the name of *Llamysden*; was used in hawking; and its nest was valued at twenty-four pence. They made use of four other species, but have left us only their names; the *Hebog* or *Hawk*, whose nest was estimated at a pound; the *Gwalch's* or *Faulcon's* at one hundred and twenty pence; the *Hwyedig's* or *long winged*, at twenty-four pence; and a species called *Cammin* or *crooked bill*, at four pence. The *Penhebogyd* or *chief falconer*, held the fourth place at the court of the *Welch* prince: but notwithstanding the hospitality of the times, this officer was allowed only three draughts out of his horn, lest he should be fuddled and neglect his birds *.

* *Leges Wallicæ*, 253. 25.

Genus II. OWLS.

EARED OWLS.

Species I. The LONG EARED OWL.

L'Hibou cornu. *Belon av.* 136.

Gesner av. 635.

Afio, seu otus. *Aldr. av.* i. 265.

The horn Owl. *Wil. orn.* 100.

Raii syn. av. 25.

Noctua aurita. *Sib. Scot.* 14.

Strix otus. Lin. syst. 132.

Le moyen Duc ou le Hibou.

Briffon av. i. 486.

Horn-uggla. *Faun. Suec. sp.* 71.

Hasselquist itin. 233.

Horn Ugle. *Brunnich* 16.

Horn-eule. *Kram.* 323.

Br. Zool. Plate B. 4. f. 1.

THIS species is found, though not frequently, in the north of *England*, in *Cheshire* and in *Wales*: the weight of the female, according to Mr. *Willoughby*, (for we never had opportunity of weighing it) is ten ounces: the length fourteen inches and a half: the breadth three feet four inches: the irides are of a bright yellow: the bill black: the circle of feathers surrounding the eyes is white tipped with reddish and dusky spots, and the part next the bill black: the breast and belly are of a dull yellow, marked with slender brown strokes pointing downwards: the thighs and vent feathers of the same color, but unspotted. The back and coverts of the wings are varied with deep brown and yellow: the quill feathers of the same color, but near the ends of the outmost is a broad bar of red: the tail is marked with dusky and reddish bars, but beneath appears ash colored: the

horns or ears are about an inch long, and consist of six feathers variegated with yellow and black: the feet are feathered down to the claws.

II. The SHORT EARED OWL.

Br. Zool. 71. Tab. B. 3. and B. 4. Fig. 2.

THE horns of this species are very small, and each consists of only a single feather; these it can raise or depress at pleasure; and in a dead bird they are with difficulty discovered. This kind is scarcer than the former; but like it is found in the mountainous wooded parts of our island: both are solitary birds, avoiding inhabited places. These species may be called long winged owls; the wings when closed reaching beyond the end of the tail; whereas in the common kinds, they fall short of it.

Descr. The length of the short eared owl is thirteen inches and a half: the head is small and hawk-like: the bill is dusky: the circle of feathers that immediately surrounds the eyes is black: the larger circle white, terminated with tawny: the feathers on the head, back, and coverts of the wings are brown edged with pale dull yellow: the breast and belly are of the same color, marked with a few long narrow streaks of brown pointing downwards: the thighs, legs and toes are covered with plain yellow feathers: the quill feathers are dusky, barred with red: the tail is of a very deep brown, adorned on each side the shaft of each

each feather with a yellow circle which contains a brown spot: the tip of the tail is white.

Besides these two species of horned owls, we may add the great horn owl of Sir R. Sibbald, p. 15. found, according to his account, in the *Orkneys*: the great eagle owl has been once shot in *Yorkshire*; but we cannot, from these two instances, determine whether they are natives of this kingdom, or only accidental wanderers out of *Scandinavia*. This short eared species we believe to be nondescript.

OWLS WITH SMOOTH HEADS.

III. The WHITE OWL.

Belon av. 143 *.

Aluco minor. Aldr. av. i. 272.

Common barn, white, or church
Owl, Howlet, madge Howlet,

Gillihowter. *Wil. orn.* 104.

Raii syn. av. 25.

Le petit Chat-huant. Brisson av.
i. 503.

Allocco, Zinan. 99.

Strix flammea. Lin. syst. 133.

Faun. Suec. 73.

Br. Zool. 71. plate B.

THIS species is almost domestic: inhabiting for the greatest part of the year, barns, haylofts, and other outhouses; and is as useful in clearing those places from mice, as the congenial cat: towards twilight it quits its perch, and takes a regular circuit round the fields; skimming along the ground in quest of field mice, and then returns to its usual residence: in the breeding season it takes to the woods.

The elegant plumage of this bird makes amends for the uncouthness of its form: a circle of soft white feathers surround the eyes. The upper part of the

* This refers only to the figure, for his description means the *Goatsucker*.

body, the coverts and secondary feathers of the wings are of a fine pale yellow : on each side the shafts are two grey and two white spots placed alternate : the exterior sides of the quill feathers are yellow ; the interior white, marked on each side with four black spots : the lower side of the body is wholly white : the interior sides of the feathers of the tail are white : the exterior marked with some obscure dusky bars : the legs are feathered to the feet : the feet are covered with short hairs : the edge of the middle claw is serrated : the usual weight of this species is eleven ounces : its length fourteen inches : its breadth three feet.

IV. The T A W N Y O W L.

Ulula. Gesner av. 773.

Strix. Aldr. av. i. 285.

Common brown or ivy Owl.
Wil. orn. 102.

Raii syn. av. 25.

Le Chat huant. *Briffon av. i.*
500.

Strige. Zinan 100.

Strix stridula. Lin. syst. 133.

Skrik uggla. Faun. Suec. 77.

Strix Orientalis. Hasselquist itin.
233.

Nacht Eule, Gemeine. *Kram.*

324.
Nat Ugle. Brunnich 18.

Br. Zool. 72. plate B. 3.

Descr. **T**HE female of this species weighs nineteen ounces : the length is fourteen inches : the breadth two feet eight inches : the irides are dusky : the ears in this, as in all owls, very large ; and their sense of hearing very exquisite. The color of this kind is sufficient to distinguish it from every other : that of the back, head, coverts of the wings, and on the scapular feathers, being a fine tawny red, elegantly spotted and powdered with black or dusky spots of various sizes : on the coverts of the wings,
4
and

and on the scapulars, are several large white spots: the coverts of the tail are tawny, and quite free from any marks: the tail is variously blotched, barred and spotted with pale red and black; in the two middle feathers the red predominates: the breast and belly are yellowish, mixed with white, and marked with narrow black strokes pointing downwards: the legs are covered with feathers down to the toes.

V. The B R O W N O W L.

The grey Owl. *Wil. orn.* 103.

Raii syn. av. 26.

La Hulote. *Briffon av.* I. 507.

Strix Ulula. Lin. syst. 133.

Faun. Suec. 78.

Ugle. Brunnich 19.

Br. Zool. 72. Plate B. 1.

AS the names this and the precedent species bear do by no means suit their colors, we have taken the liberty of changing them to others more congruous. Both these kinds agree entirely in their marks; and differ only in the colors; in this the head, wings and back are of a deep brown, spotted with black in the same manner as the former: the coverts of the wings and the scapulars are adorned with similar white spots: the exterior edges of the four first quill feathers in both are serrated: the breast in this is of a very pale ash color mixed with tawny, and marked with oblong jagged spots: the feet too are feathered down to the very claws: the circle round the face is ash-colored, spotted with brown. Descr.

Both these species inhabit woods, where they reside the whole day; in the night they are very clamorous;

approach our dwellings; and will frequently enter pigeon houses, and make great havock in them. These breed in hollow trees, or ruined edifices; lay four eggs of an elliptic form, and of a whitish color.

VI. The LITTLE OWL.

La Cheveche, *Belon av.* 140.

Noctua. *Gesner av.* 620.

Little Owl. *Wil. orn.* 105.

Raii syn. av. 26.

Edw. 228.

Tschiavitl. *Kram.* 324.

Faun. Suec. 79.

La petite Chouette, ou la Cheveche. *Briffon av.* i. 514.

Strix passerina. Lin. syst. 133.

La Civetta. *Olini* 65.

Krak-Ugle. *Brunnich* 20.

Br. Zool. 73. plate B. 5.

Descr.

THIS elegant species is very rare in *England*; it is sometimes found in *Yorkshire*, *Flintshire*, and also near *London*: in size it scarcely exceeds a thrush, though the fullness of its plumage makes it appear larger: the irides are of a light yellow: the bill of a paler color: the feathers that encircle the face are white, tipped with black: the head brown spotted with white: the back, and coverts of the wings are of a deep olive brown; the latter spotted with white: on the breast is a mixture of white and brown: the belly is white, marked with a few brown spots: the tail is of the same color with the back: in one subject we saw, each feather was barred with white: in another, each was adorned with circular white spots, placed opposite one another on both sides the shaft: the legs and feet are covered with feathers down to the claws.

The *Italians* made use of this owl to decoy small birds to the limed twig: the method of which is exhibited in *Olini's uccelliera*, p. 65.

Genus

Genus III. BUTCHER BIRDS.

Species I. GREAT ASH COLORED BUTCHER BIRD.

- | | |
|--|---|
| La grande Pie griesche. <i>Belon</i> | Butcher Bird, Murdering Bird or |
| <i>av.</i> 126. | Skreek. <i>Mer. Pinax</i> 170. |
| <i>Lanius cinereus.</i> <i>Gesner av.</i> 579. | <i>Cat. Carol.</i> app. 36. |
| Skrike, nyn murder. <i>Turneri.</i> | Night Jar. <i>Mort. Northampt.</i> 424. |
| <i>Lanius cinereus, Collurio major.</i> | La Pie-griesche grise. <i>Briffon av.</i> |
| <i>Aldr. av. i.</i> 199. | ii. 141, |
| <i>Castrica, Ragaftola. Olin</i> 41. | <i>Pl. enl.</i> 32. f. 1. |
| Greater Butcher Bird, or Matta- | <i>Lanius excubitor. Lin. syst.</i> 135. |
| gefs; in the <i>North of England,</i> | Warfogel. <i>Faun. Suec.</i> 80. |
| Wierangle. <i>Wil. orn.</i> 87. | <i>Danish Torn-Skade. Norvegis</i> |
| <i>Raii syn. av.</i> 18. | <i>Klavert. Br.</i> 21. 22. |
| Speralster, Grigelalster, Neun- | <i>Br. Zool.</i> 73. plate C. |
| todter. <i>Kram.</i> 364. | |

THIS bird weighs three ounces; its length is ten inches: its breadth fourteen: its bill is black, one inch long, and hooked at the end; the upper mandible furnished with a sharp process: the nostrils are oval, covered with black bristles pointing downwards: the muscles that move the bill are very thick and strong; which makes the head very large. This apparatus is quite requisite in a species whose method of killing its prey is so singular, and whose manner of devouring it not less extraordinary: small birds it will seize by the throat and strangle*; which probably is the reason the *Germans* call this bird *Wurchangel*†, or the suffocating angel. When it has killed the prey, which is birds or insects, it fixes them on some thorn, and when thus spitted pulls them to pieces with its bill: on this account the *Germans* call it *Thornträer*.

Descr

* *Edw. Gl.* iii. 233.† *Wil. orn.* 87.

and

and *Thornfreker*. We have seen them, when confined in a cage, treat their food in much the same manner, sticking it against the wires before they would devour it. Mr. *Edwards* very justly imagines that as nature has not given these birds strength sufficient to tear their prey to pieces with their feet, as the hawks do, they are obliged to have recourse to this artifice.

The crown of the head, the back, and the coverts that lie immediately on the joints of the wings are ash colored; the rest of the coverts black: the quill feathers are black, marked in their middle with a broad white bar; and except the four first feathers, and the same number of those next the body, are tipped with white: the tail consists of twelve feathers of unequal lengths, the middle being the longest; the two middlemost are black, the next on each side tipped with white, and in the rest the white gradually increases to the outmost, where that color has either entire possession, or there remains only a spot of black: the cheeks are white, but crossed from the bill to the hind part of the head with a broad black stroke: the throat, breast and belly are of a dirty white: the legs are black. The female is of the same color with the male, the breast and belly excepted, which are marked transversely with numerous semicircular brown lines.

II. The RED BACKT BUTCHER BIRD.

- | | |
|---|--|
| La petite Pie griesche grise. | <i>Mort. Northampt.</i> 424. |
| <i>Belon av.</i> 128. | L'Ecorcheur, <i>Briffon av.</i> ii. 151. |
| Lanius tertius. <i>Aldr. av.</i> i. 199. | <i>Pl. enl.</i> 31. f. 2. |
| Lesser Butcher Bird, called in | Lanius collurio. <i>Lin. syst.</i> 136. |
| <i>Yorkshire Flusher. Wil. orn.</i> 88. | <i>Faun. Suec.</i> 81. Tab. ii. f. 81. |
| <i>sp.</i> 2. The male. 89. <i>sp.</i> 3. | Dorngreul, Dornheher. <i>Kram.</i> |
| the female. | 363. |
| <i>Raii syn. av.</i> 18. | Bufferola, Ferlotta rossa. <i>Zinan.</i> |
| <i>Danish Tornskade. Norv. Hant-</i> | 91. |
| <i>vark. Br.</i> 23. | <i>Br. Zool.</i> 74. plate C. 1. |

THE male weighs two ounces ; the female two ounces two drams. The length of the former is seven inches and a half ; the breadth eleven inches. The irides are hazel ; the bill resembles that of the preceding species ; the head and lower part of the back are of a fine light grey : across the eyes from the bill runs a broad black stroke ; the upper part of the back and coverts of the wings are of a bright ferruginous color ; the breast, belly and sides are of an elegant blossom color ; the two middle feathers of the tail are longest, and entirely black ; the lower part of the others white, and the exterior webs of the outmost feather on each side wholly so. Descr.

In the female the stroke across the eyes is of a reddish brown ; the head of a dull rust color mixed with grey ; the breast, belly and sides of a dirty white marked with semicircular dusky lines ; the tail is of a deep brown, the outward feather on each side excepted, whose exterior webs are white.

These

These birds build their nests in low bushes, and lay six eggs of a white color; but encircled at the bigger end with a ring of brownish red.

III. The W O O D - C H A T.

<i>Lanius minor primus. Aldr. av.</i>	Dorngreul mit rother platten.
i. 200.	<i>Kram. 363.</i>
Another sort of Butcher Bird.	La Pie griefche rousse. <i>Briffon</i>
<i>Wil. orn. 89. sp. 4.</i>	<i>av. ii. 147.</i>
The Wood-chat. <i>Raii syn. av.</i>	<i>Pl. enl. 9. f. 2.</i>
19. <i>sp. 6.</i>	Buferola, Ferlotta bianca. <i>Zinan.</i>
<i>Br. Zool. 74. plate C. 2.</i>	89.

THIS is one of the few *British* birds that have escaped our inspection; therefore we are obliged to describe it from an elegant drawing by Mr. *Edwards*, preserved in the *Sloanian Museum*. In size it seems equal to the preceding: the bill is horn colored; the feathers that surround the base are whitish; above is a black line which is drawn cross the eyes, and then downwards each side the neck: the head and hind part of the neck are of a bright bay; the upper part of the back dusky: the coverts of the tail grey: the scapulars white: the coverts of the wings dusky: the quill feathers black, marked towards the bottom with a white spot: the throat, breast and belly of a yellowish white. The two middle feathers appear by the drawing to be entirely black: the exterior edges and tips of the rest white: the legs black. *M. Briffon* describes the female thus: the upper part of the head, neck and body are reddish, striated transversely with brown: the lower parts of the body are of a dirty white

Class II. LEST BUTCHER BIRD. 165

white rayed with brown: the tail is of a reddish brown, marked near the end with brown and tipt with red.

IV. The LEST BUTCHER BIRD.

Left Butcher Bird. <i>Edward av.</i>	tache, <i>Parus barbatus. Brisson</i>
55.	<i>av. iii. 567.</i>
Bearded Titmouse. <i>Ald. av. i.</i>	<i>Parus biarmicus. Lin. syst. 342.</i>
<i>tab. 48.</i>	<i>Br. Zool. 74. plate C. 2.</i>
La mesange barbue, ou le mous-	

THIS small species is found in the marshes near *London*: we have also seen it near *Gloucester*. It is of the same shape as the long-tailed titmouse; but rather larger. The bill is short, strong and very convex, of a yellow color: the head is of a fine grey; on each side the bill beneath the eye is a long triangular tuft of black feathers; the chin and throat are white: the middle of the breast flesh colored; the sides, thighs and vent feathers of a pale orange: the hind part of the neck, and the back are of an orange bay: the secondary feathers of the wings are black edged with orange: the quill feathers dusky on their exterior, white on their interior sides: the lesser quill feathers tipt with orange. The tail is two inches three quarters long: the two middle feathers of the tail are longest, the others gradually shorten on each side: the outmost of which are of a deep orange color. The legs are black.

Descr.

The female wants the black mark on each cheek, and the fine flesh color on the breast: the crown of the head is of a brownish rust color spotted with black; the

the outmost feathers of the tail are black tipped with white. These birds have all the characters of the butcher-bird; so, after the opinion of Mr. *Edwards*, we place them in that genus.

Genus IV. C R O W S.

Species I. The R A V E N.

Le Corbeau. *Belon av.* 279.

Corvus. *Gesner av.* 334.

Corvo, Corbo. *Aldr. av.* i. 343.

Wil. orn. 121.

Raii syn. av. 39.

Le Corbeau. *Briffon av.* ii. 8.

Corvus corax. *Lin. syst.* 155.

Korp. *Faun. Suec.* 85.

Danish Raun. *Norw. Korp.*

Br. 27.

Rab. Kram. 333.

Br. Zool. 75.

Descr.

THIS species weighs three pounds; its length is two feet two inches; its breadth four feet; the bill is strong and thick; and the upper mandible convex. The color of the whole bird is black, finely glossed with a rich blue; the belly excepted, which is dusky.

Ravens build in trees, and lay five or six eggs of a pale green color marked with small brownish spots. They frequent in numbers the neighbourhood of great towns; and are held in the same sort of veneration as the vultures are in *Egypt**, and for the same reason; for devouring the carcases and filth, that would otherwise prove a nuisance. A vulgar respect is also paid to the raven, as being the bird appointed by heaven to feed the prophet *Elijah*, when he fled from

* *Hasselquist itin.* 23.

the rage of *Abab* *. The raven is a very docil bird, may be taught to speak, and fetch and carry. In clear weather they fly in pairs a great height, making a deep loud noise, different from the common croaking. Their scent is remarkably good; and their life prolonged to a great space.

II. The C R O W.

La Corneille. *Belon av.* 281.

Cornix, (Krae) *Gesner av.* 320.

Cornice, Cornacchio. *Aldr. av.* i.

369.

Wil. orn. 122.

Raii syn. av. 39.

La Corneille. *Briffon av.* 12.

Corvus corone. *Lin. syst.* 155.

Faun. Suec. 86.

Krage. *Br.* 30.

Br. Zool. 75.

THE crow in the form of its body agrees with the raven; also in its food, which is carrion and other filth. It will also eat grain and insects; and like the raven will pick out the eyes of young lambs when just dropped: for which reason it was formerly distinguished from the rook, which feeds entirely on grain and insects, by the name of the *gor* or *gorecrow*; thus *Ben Johnson* in his *Fox*, *act* I. *scene* 2.

Vulture, kite,

Raven and *gor-crow*, all my birds of prey.

England breeds more birds of this tribe than any other country in *Europe*. In the twenty-fourth of *Henry VIII.* they were grown so numerous and thought so prejudicial to the farmer, as to be considered an evil worthy parliamentary redress: an act was pas-

* 1 *Kings* 17.

fed for their destruction, in which rooks and choughs, were included. Every hamlet was to provide crow nets for ten years ; and all the inhabitants were obliged at certain times to assemble during that space, to consult the properest method of extirpating them.

Though the crow abounds in our country, yet in *Sweden* it is so rare that *Linnaeus* mentions it only as a bird that he once knew killed there.

It lays the same number of eggs as the raven, and of the same color : both these birds are often found white or pied ; an accident that befalls black birds more frequently than any others. The crow weighs about twenty ounces. Its length eighteen inches : its breadth two feet two inches.

III. The R O O K.

La Graye, Grolle ou Freux.	La Corneille Moiffoneuse. <i>Briffon</i>
<i>Belon av.</i> 283.	<i>av.</i> ii. 16.
Cornix frugivora. (Roeck) <i>Gesner</i>	Roka. <i>Faun. Suec.</i> 87.
<i>av.</i> 332.	Spermologus, seu frugilega. <i>Caii</i>
<i>Aldr. av.</i> i. 378.	<i>opusc.</i> 100.
<i>Wil. orn.</i> 123.	Schwartze kran, Schwartz
<i>Raii syn. av.</i> 39.	krahe. <i>Kram.</i> 333.
<i>Corvus frugilegus. Lin. syst.</i> 156.	<i>Br. Zool.</i> 76.

THIS bird differs not greatly in its form from the carrion crow : the size of the rook is superior ; but the colors in each are the same, the plumage of both being glossed with a rich purple. But what distinguishes the rook from the crow is the bill ; the nostrils, chin, and sides of that and the mouth being in old birds white and bared of feathers, by often thrust-

thrusting the bill into the ground in search of the *erucæ* of the Dor-beetle * ; the rook then, instead of being proscribed, should be treated as the farmer's friend ; as it clears his ground from caterpillars, that do incredible damage by eating the roots of the corn. Rooks are sociable birds, living in vast flocks : crows go only in pairs. They begin to build their nests in *March* ; one bringing materials, while the other watches the nest, lest it should be plundered by its brethren : they lay the same number of eggs as the crow, and of the same color, but less. After the breeding season rooks forsake their nest-trees, and for some time go and roost elsewhere, but return to them in *August* : in October they repair their nests †.

IV. The ROYSTON CROW.

La Corneille emmantelée. <i>Belon</i>	La Corneille mantelée. <i>Brissot</i>
<i>av.</i> 285.	<i>av.</i> ii. 19.
Cornix varia, Marina, Hyberna,	Mulacchia cinerizia, Monacchia.
(Nabelfrae.) <i>Gesner av.</i> 332.	<i>Zinan.</i> 70.
Cornix cinerea. <i>Aldr. av.</i> i. 379.	Corvus cornix. <i>Lin. syst.</i> 156.
<i>Wil. orn.</i> 124.	<i>Kraka. Faun. Suec. sp.</i> 88.
<i>Raii syn. av.</i> 39.	Grave Kran, Kranveitl, <i>Kram.</i>
<i>Martin's West. Isles.</i> 376.	333.
Hooded Crow. <i>Sib. Scot.</i> 15.	<i>Br. Zool.</i> 76. plate D. 1.
<i>Pl. enl.</i> 76.	

THE bill of this species agrees in shape with that of the rook ; to which it bears great similitude in its manners ; flying in flocks, and feeding on insects. In *Great-Britain* it is a bird of passage : visiting us in the beginning of winter, and leaving us with the

* *Scarabæus melolantha. Lin. syst.* 351. *Rosel* ii. tab. 1. *List. Goed.* 265.

† *Calendar of Flora.*

woodcocks. They are found in the inland as well as maritime parts of our country ; in the latter they feed on crabs and shellfish. They breed in *Sueden*, and build in trees, commonly in alders ; and lay four eggs *. *Belon*, *Gesner* and *Aldrovand*, agree that this is a bird of passage in their respective countries : that it resorts in the breeding season to high mountains, and descends into the plains on the approach of winter. It breeds though in the southern parts of *Germany*, on the banks of the *Danube* †.

Descr. The weight of this species is twenty-two ounces : the length twenty-two inches ; the breadth twenty-three. The head, underside of the neck, and wings are black glossed over with a fine blue : the breast belly, back, and upper part of the neck, are of a pale ash color : the irides hazel : the legs black, and weaker than those of the rook. The bottom of the toes are very broad and flat to enable them to walk without sinking on marshy and muddy grounds, where they are conversant. We do not know that they breed in any of the *British* isles, except *Sbetland* ; being the only sort of crow found there.

* *Faun. Suec. sp.* 88.

† *Kram.* 333.

V. The M A G P I E.

La Pie. *Belon av.* 291.

Pica varia et caudata. Gesner av.
695.

Aldr. av. i. 392.

The Magpie, or Pianet. *Wil.*
orn. 127.

Raii syn. av. 41.

La Pie. *Briffen ii.* 35.

Gazza, Putta. *Zinan.* 66.

Corvus Pica. Lin. syst. 157.

Skata, Skiura, Skara, *Faun. Suec.*
sp. 92.

Danish Skade, Huus Skade. Norw.

Skior, Tunfugl. *Brunnich* 32.

Alster. *Kram.* 335.

Br. Zool. 77. plate D. 2.

THE great beauty of this very common bird was so little attended to, that the editors of the *British Zoology* thought fit to publish a print of it after a painting by the celebrated *Barlow*. The marks of this species are so well known, that it would be impertinent to detain the reader with the particulars.

We shall only observe the colors of this bird: it's black, it's white, it's green, and purple, and the rich and gilded combination of glosses on the tail, are at least equal to those that adorn the plumage of any other. It bears a great resemblance to the butcher-bird in its bill, which has a sharp process near the end of the upper mandible; in the shortness of its wings, and the form of the tail, each feather shortening from the two middlemost: it agrees also in its food; which are worms, insects, and small birds. It will destroy young chickens: it is a crafty, restless, noisy bird: it builds its nest with great art, covering it entirely with thorns, except one small hole for admittance: and lays six or seven eggs of a pale green color spotted with brown. The magpie weighs near

nine ounces : the length is eighteen inches ; the breadth only twenty-four.

VI. The J A Y.

Le Jay, *Belon av.* 289.

Pica glandaria. Gesner av. 700.

Aldr. av. i. 393.

Olin. 35.

Wil. orn. 130.

Raii syn. av. 41.

Ghiandaia. Zinan. 67.

Corvus glandarius. Lin. syst. 156.

Le Geay, *Garrulus. Brisson av.* ii. 47.

Allonkrika, *Kornskrika. Faun. Suec. sp.* 90.

Skov-stade. *Br.* 33.

Nuss-heher. *Kram.* 335.

Br. Zool. 77. plate D.

THIS is one of the most beautiful of the *British* birds. The weight is between six and seven ounces : the length thirteen inches ; the breadth twenty and a half.

The bill is strong, thick and black ; about an inch and a quarter long. The tongue black, thin, and cloven at the tip : the irides white. The chin is white on each side the bill : at the angle of the mouth are two large black spots. The forehead is white streaked with black : the head is covered with very long feathers, which at pleasure it can erect into the form of a crest : the whole neck, back, breast and belly are of a faint purple dashed with grey ; the covert feathers of the wings are of the same color.

The first quill feather is black ; the exterior webs of the nine next are ash-colored, the interior webs dusky : the six next are black ; but the lower sides of their exterior webs are white tinged with blue ; the two next wholly black ; the last of a fine bay color tipped with black.

The

The greater covert feathers are most beautifully barred with a lovely blue, black and white: the rest are black: the rump is white. The tail consists of twelve black feathers. The feet are of a pale brown: the claws large and hooked. It lays five or six eggs of a dull white, mottled very obscurely with pale brown. The young follow their parents till the spring; in the summer they are very injurious to gardens, being great devourers of pease and cherries: in the autumn and winter they feed on acorns, from whence the latin name. Dr. *Kramer* * observes, that they will kill small birds. Jays are very docil, and may be brought to imitate the human voice: their native note is very loud and disagreeable.

VII. The CHATTERER.

- | | |
|--|--|
| Garrulus Bohemicus. <i>Gesner av.</i> | <i>Phil. Transf.</i> No. 175. |
| 703. | Ampelis garrulus. <i>Lin. syst.</i> 297. |
| <i>Aldr. av.</i> i. 395. | Siden Suantz, Snotuppa. <i>Faun.</i> |
| Bohemian Chatterer. <i>Wil. orn.</i> | <i>Suec. sp.</i> 82. |
| 133. | Sieden vel Sieben Suands. <i>Brun-</i> |
| Silk Tail. <i>Raii syn. av.</i> 85. | <i>nich</i> 25. |
| <i>Ray's Letters</i> , 198. 200. | Zuserl, Geidenschweiff. <i>Kram.</i> |
| Le Jaseur de Boheme, Bomby- | 363. |
| cilla Bohemica. <i>Briffon av.</i> ii. | <i>Br. Zool.</i> 77. plate C. 1. |
| 333. | |

THE critical *Faunist* † may possibly censure us for admitting a native of *Germany* into a *British* zoology; but as we can plead the extreme beauty

* *Kram. elench.* 335.

† *Faunists*, are writers on the animals of particular countries: such is *Linnaeus*, as author of the history of the *Swedish* animals, to which he gave the title of *Fauna Suecica*; from one of the names

Descr.

of this bird, and that it does sometimes (though very rarely) visit the northern parts of *England* in large flocks, we hope to be excused introducing it here. The subject we describe was killed on *Flamborough-moor, Yorkshire*. The length was eight inches: the bill short, thick and black: the end of the upper mandible furnished with a small process: the base of the bill is covered with black feathers, which pass over each eye to the hind part of the head: the head is adorned with a long sharp pointed crest reclining backward, ash-colored mixed with red: the cheeks are tawny: the back is of the same color with the crest, but darker: the rump ash-colored: the throat is black, and in the middle is a small tuft of bristles: the breast and belly are of a pale chesnut dashed with purple: the vent feathers a bright bay: the lower part of the tail is black, the end of a rich yellow: the feathers are of an equal length, as in the jay, to which it seems to have great affinity: the lesser coverts of the wings are brown, the greater black tipped with white: the quill feathers are black; the ends of the three first white; the six next have near half an inch of their outer margin edged with a fine yellow; and that of the inner with white, so as to form an L. But what distinguishes this from all other birds are the horny appendages from the tips of seven of the lesser quill feathers, that have the color and gloss of the best red sealing wax. The legs are short and black. Writers who have had better opportunities of examining this species than we have, say that the male has

of *Cybele*, who under that character was said to favor all living creatures.

seven

seven of these appendages, the female only five *; that they live in the woods, and feed on juniper and other berries †. This bird is also found in *North America*; those figured by Mr. *Catesby*, and again by Mr. *Edwards* ‡, seem only to be varieties of our kind.

VIII. The JACK-DAW.

Chouca, Chouchette, ou Chouette. *Belon av.* 286.

Gracculus, seu monedula. *Gesner av.* 521.

Aldr. av. i. 387.

Wil. orn. 125.

Raii syn. av. 40.

Le Choucas, *Briffon av.* 24.

Mulaechia nera. *Zinan.* 70.

Corvus monedula. *Lin syst.* 156.

Kaja. *Faun. Suec. sp.* 89.

Danish Alike. *Norv.* Kaae, Kaye,

Raun Kaate, Raage. *Br.* 31.

Tagerl, Dohle, Tschockerl. *Kram.*

334.

Br. Zool. 78.

THE jack-daw weighs nine ounces: the length thirteen inches: the breadth twenty-eight. The head is large in proportion to its body; which Mr. *Willoughby* says argues him to be ingenious and crafty. The irides are white: the forehead is black: the hind part of the head ash colored; the breast and belly of the same color, but more obscure: the rest of the plumage is black, slightly glossed with blue: the feet and bill black. It is a docil loquacious bird. Descr.

Jack-daws breed in steeples, old castles, and in high rocks; laying five or six eggs: are gregarious birds; and feed on insects, grain, and seeds ||.

* *Brunnich Ornith. Boreal.*

† *Kramer Elench. An. Austriae.*

‡ *Cat. Carol. i.* 46. *Edw.* 242.

|| The caryocatactes, *Wil. orn.* 132. *Edw. tab.* 240. a bird of this genus, was shot near *Mostyn, Flintshire*, in *October, 1753*; supposed to have straggled from *Germany*, where they are common,

Genus V. WOODPECKERS.

I. The GREEN WOODPECKER.

Le Picmart, Pic verd, Pic jaulne.

Belon. av. 299.*Gesner av.* 710.Pico verde. *Aldr. av.* i. 416.Green Woodpecker, or Woodspite; called also the Rain Fowl, High Hoe, and Hew-hole. *Wil. orn.* 135.*Raii syn. av.* 42.Le Pic verd. *Briffon av.* 4. 9.*Picus viridis. Lin. syst.* 175.Wedknar, Gronspik, Grongjoling. *Faun. Suec. sp.* 99.*Hasselquist itin. Ter. Sanct.* 291.*Girald. Cambrens.* 191.*Danish & Norw. Groenspet. Br.* 39.Gronspecht. *Kram.* 334.*Br. Zool.* 78. plate E.

THE wisdom of providence in the admirable contrivance of the fitness of the parts of animals to their respective nature, cannot be better illustrated than from this genus: which we shall give from the observations of our illustrious countryman Mr. Ray*.

These birds feed entirely on insects: and their principal action is that of climbing up and down the bodies or boughs of trees: for the first purpose

and the Roller, another bird of this class, was killed near *Helfstone bridge, Cornwall*, in the autumn 1766. It is also a native of *Germany*; and is far the most beautiful of the *European* birds; as an acquaintance with these wanderers may be agreeable to our readers, we have given its figure as well as that of the former. The one is copied from Mr. *Edwards*; the other from a drawing by *Paillou*. *Vide appendix.*

* Ray on the creation, p. 143.

they

they are provided with a long slender tongue, armed with a sharp boney end barbed on each side, which by the means of a curious apparatus of muscles* they can exert at pleasure, darting it to a great length into the clefts of the bark, transfixing and drawing out the insects that lurk there.

They make their nests in the hollows of trees: in order therefore to force their way to those cavities, their bills are formed strong, very hard, and wedge-like at the end; Dr. *Derham* observes, that a neat ridge runs along the top, as if an artist had designed it for strength and beauty.

Their legs are short, but strong; their thighs very muscular: their toes disposed, two backwards, two forward: the feathers of the tail are very stiff; sharp pointed and bending downwards. The three first circumstances do admirably concur to enable them to run up and down the sides of trees with great security; and the strength of the tail supports them firmly when they continue long in one place, either where they find plenty of food, or while they are forming an access to the interior part of the timber. This form of the tail makes their flight very awkward, as it inclines their body down; and forces them to fly with short and frequent jerks when they would ascend or even keep in a line.

This species feeds oftener on the ground than any other of the genus; all of them make their nests in the hollows of trees; and lay five or six eggs of a

* *Phil. trans. Martin's abridg. III. p. 183. plate 3.*

Descr. beautiful semitransparent white. This kind weighs six ounces and a half. Its length is thirteen inches; the breadth twenty and a half: the bill is dusky, triangular, and near two inches long: the crown of the head is crimson, spotted with black. The eyes are surrounded with black; beneath which (in the males only) is a rich crimson mark. The back, neck, and lesser coverts of the wings are green. The rump of a pale yellow. The greater quill feathers are dusky, spotted on each side with white. The tail consists of ten stiff feathers, whose ends are generally broken as the bird rests on them in climbing; their tips are black: the rest of each is alternately barred with dusky and deep green. The whole under part of the body is of a very pale green; and the thighs and vent marked with dusky lines. The legs and feet are of a cinereous green.

II. The GREATER SPOTTED WOODPECKER.

L'epeiche, Cul rouge, Pic rouge.	Le grand Pic varié. <i>Briffon av.</i>
<i>Belon av.</i> 300.	iv. 34.
Picus varius, seu albus. <i>Gesner</i>	Picus major. <i>Lin. syst.</i> 176.
<i>av.</i> 709.	Gyllenrenna. <i>Faun. Suec. sp.</i> 100.
Greater spotted Woodpecker, or	Hakke-speet. <i>Brunnich</i> 40.
Witwal. <i>Wil. orn.</i> 137.	Grosses Baumhackl. <i>Kram.</i> 336.
<i>Raii syn. av.</i> 43.	<i>Br. Zool.</i> 79. plate E.
Picchio. <i>Zinan.</i> 73.	

Descr. **T**HIS species weighs two ounces three quarters; the length is nine inches: the breadth is sixteen. The bill is one inch and a quarter long of a black horn color. The irides are red. The forehead is of a pale buff color. The crown of the head a glossy black.

The

The hind part marked with a rich deep crimson spot: the cheeks white; bounded beneath by a black line that passes from the corner of the mouth and surrounds the hind part of the head. The neck is encircled with a black color. The throat and breast are of a yellowish white. The vent feathers of a fine light crimson. The back, rump and coverts of the tail, and lesser coverts of the wings are black; the scapular feathers and coverts adjoining to them are white. The quill feathers black, elegantly marked on each web with round white spots. The four middle feathers of the tail are black, the next tip with dirty yellow; the bottoms of the two outmost black: the upper parts a dirty white. The exterior feather marked on each web with two black spots; the next with two on the inner web, and only one on the other. The legs are of a lead color. The female wants that beautiful crimson spot on the head, in other respects the colors of both agree. This species is much more uncommon than the preceding; and keeps altogether in the woods.

III. The LESS SPOTTED WOODPECKER.

Gesner av. 709.*Aldr. av.* i. 416.

Lesser spotted Woodpecker, or

Hickwall. *Wil. orn.* 138.*Raii syn. av.* 43.*Picus minor. Lin. syst.* 176.Le petit Pic variè. *Brissou. av.*

iv. 41.

Faun. Suec. sp. 102.*Hasselquist itin.* 242.Kleiner Baumhackl. *Kram.* 336.*Br. Zool.* 79. plate E.

DESCR. **T**HIS species is the left of the genus, scarce weighing an ounce: the length is six inches; the breadth eleven. The forehead is of a dirty white: the crown of the head (in the male) of a beautiful crimson: the cheeks and sides of the neck are white, bounded by a bed of black beneath the former. The hind part of the head and neck, and the coverts of the wings are black: the back is barred with black and white: the scapulars and quill feathers spotted with black and white: the four middle feathers of the tail are black; the others varied with black and white: the breast and belly are of a dirty white: the vent feathers a bright crimson: the crown of the head (in the female) is white; it wants also the red mark under the tail: the feet are of a lead color. It has all the characters and actions of the greater kind, but is not so often met with. Besides these, we are credibly informed that the *Pic variè* of *M. Brissou*, and the *Picus medius* of *Linnaeus* is found in *Lancashire*.

Genus VI. The W R Y N E C K.

I. The W R Y N E C K.

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|---|--|
| Le Tercou, Torcou, ou Turcot. | The Emmet Hunter. <i>Charlton</i> |
| <i>Belon av.</i> 306. | <i>ex.</i> 93. |
| Jynx. <i>Gesner av.</i> 573. | Jynx torquilla. <i>Lin. syst.</i> 172. |
| <i>Aldr. av.</i> i. 421. | Gjoktyta. <i>Faun. Suec. sp.</i> 97. |
| The Wryneck. <i>Wil. orn.</i> 138. | Bende-Hals. <i>Br.</i> 37. |
| <i>Raii syn. av.</i> 44. | Natterwindl, Wendhals. <i>Kram.</i> |
| Le Torcol, Torquilla. <i>Briffon</i> | 336. |
| <i>av.</i> iv. 4. <i>tab.</i> 1. <i>fig.</i> 1. | <i>Br. Zool.</i> 80. plate F. |
| Collotorto, verticella. <i>Zinan.</i> 72. | |

NATURE, by the elegance of its pencilling the colors of this bird, hath made ample amends for their want of splendor. Its plumage is marked with the plainest kinds. A list of black and ferruginous strokes divides the top of the head and back. The sides of the head and neck are ash colored beautifully traversed with fine lines of black and reddish brown. The quill feathers are dusky, but each web is marked with rust colored spots. The chin and breast are of a light yellowish brown, adorned with sharp pointed bars of black. The tail consists of ten feathers, broad at their ends and weak; of a pale ash color, powdered with black and red, and marked with four equidistant bars of black. The tongue is long and cylindric: for the same use as that of the woodpecker. The toes are also disposed the same way. The bill is short, weak and a little arcuate. The irides are of a yellowish hazel.

The Wryneck we believe to be a bird of passage; appear-

appearing here in the spring before the cuckoo. The *Welfs* consider it as the forerunner or servant of that bird, and call it *Gwâs y gog*, or the cuckoo's attendant: the *Swedes* regard it in the same light *. The food of these birds is the same with that of the woodpecker. Its weight is one ounce and a quarter: the length seven inches; the breadth eleven. It takes its name from a manner it has of turning its head back to the shoulders; especially when terrified: it has also the faculty of erecting the feathers of the head like those of the jay. Its eggs are white, and have so thin a shell that the yolk may be seen through it. This bird builds in the hollows of trees, making its nest of dry grass, in which we have counted nine young.

Genus VII. The C U C K O O.

I. The C U C K O O.

Le Coqu. *Belon av.* 132.

Cuculus. *Gesner av.* 362.

Aldr. av. i. 20.

Cuculo. *Olina* 38.

Wil. orn. 97.

Raii syn. av. 23.

Le Coucou. *Briffon av.* 105.

Cuculus canorus. *Lin. syst.* 168.

Gjok. *Faun. Suec. sp.* 96.

Danish Gjoeg v. Kuk. *Norv.*

Gouk. *Br.* 36.

Kuctuct. *Kram.* 337.

Br. Zool. 80. plate G. G. 1.

THIS singular bird appears in our country early in the spring, and makes the shortest stay with us of any bird of passage; it is compelled here, as

* *Jynx hieme non apparet, vere autem remigrans, cuculi, post quatuordecim dies, adventum rusticis annuntiat. Amœn. acad. iv. 584.*

Mr. *Stillingfleet* observes, by that constitution of the air which causes the fig-tree to put forth its fruit *: From the coincidence of the first appearance of the summer birds of passage, and the leafing and fruiting of certain plants; this ingenious writer would establish a natural calendar in our rural œconomy; to instruct us in the time of sowing our most useful seeds, or of doing such work as depends on a certain temperament of the air. As the fallibility of human calendars need not be insisted on, we must recommend to our countrymen some attention to these feathered guides, who come heaven-taught, and point out the true commencement of the season †; their food being the insects of those seasons they continue with us.

The cuckoo is silent for some little time after his arrival: his note is a call to love, and used only by the male, who sits perched generally on some dead tree, or bare bough, and repeats his song, which he looses as soon as the amorous season is over. In a trap, which we placed on a tree frequented by cuckoos, we caught not fewer than five male birds in one season; his note is so uniform, that his name in all languages seems to have been derived from it; and in all other countries it is used in the same reproachful sense.

the plain song *cuckoo* grey,
whose note full many a man doth mark,
and dares not answer nay.

Shakespear.

* *Calendar of Flora. vid. Preface throughout.*

† In *Sweden*, which is a much colder climate than our own, the cuckoo does not appear so early by near a month.

The reproach seems to arise from this bird making use of the bed or nest of another to deposit its eggs in; leaving the care of its young to a wrong parent. A water-wagtail or hedge sparrow, is generally the nurse of the young cuckoos; who, if they happen to be hatched at the same time with the genuine off-spring, quickly destroy them, by overlaying them as their growth is soon so superior. This want in the cuckoo of the common attention other birds have to their young; seems to arise from some defect in its make, that disables it from incubation; but what that is, we confess ourselves ignorant, referring the inquiry to some skilful anatomist.

Descr. The weight of the cuckoo is a little more than five ounces; the length is fourteen inches; the breadth twenty-five. The bill is black, very strong, a little incurvated, and about two-thirds of an inch long. The irides are yellow. The head, hind part of the neck, the coverts of the wings, and the rump are of a dove color; darker on the head and paler on the rump. The throat and upper part of the neck are of a pale grey: the breast and belly white, crossed elegantly with undulated lines of black. The vent feathers of a buff color, marked with a few dusky spots. The wings are very long, reaching within an inch and a half of the end of the tail; the first quill feather is three inches shorter than the others; they are dusky, and their inner webs are barred with large oval white spots. The tail consists of ten feathers of unequal lengths like those of the butcher bird: the two middle are black tipped with white; the others are marked with white spots on each side their shafts. The legs
are

are short; and the toes disposed two backwards and two forwards like the woodpecker, though it is never observed to run up the sides of trees. The female differs in some respects. The neck before and behind is of a brownish red: the tail barred with the same color and black, and spotted on each side the shaft with white. The young birds are brown mixed with ferruginous and black, and in that state have been described by some authors as old ones.

Genus VIII. The NUTHATCH.

I. The NUTHATCH.

- | | |
|--|--|
| Le grand Grimpereau, le Tor- | Le Torchepot, Sitta. <i>Briffon av.</i> |
| chepot. <i>Belon av.</i> 304. | iii. 538. <i>tab.</i> 29. <i>fig.</i> 3. |
| Picus cinereus, seu Sitta. <i>Gesner</i> | Picchio grigio, Raparino. <i>Zinan.</i> |
| <i>av.</i> 711. | 74. |
| Ziolo. <i>Aldr. av.</i> i. 417. | Notwacka, Notpacka. <i>Faun.</i> |
| The Nuthatch, or Nut-jobber. | <i>Suec. sp.</i> 104. |
| <i>Wil. orn.</i> 142. | <i>Danish</i> Spøtt-meise. <i>Norw. Nat-</i> |
| <i>Raii syn. av.</i> 47. | Bake. <i>Br.</i> 42. |
| The Woodcracker. <i>Plott's hist.</i> | Klener, Nusszhacker. <i>Kram.</i> |
| <i>Oxf.</i> 175. | 362. |
| Sitta Europæa. <i>Lin. syst.</i> 177. | <i>Br. Zool.</i> 81. plate H. |

THE nuthatch weighs near an ounce; its length is five inches three-quarters; breadth nine inches; the bill is strong and strait, about three quarters of an inch long; the upper mandible black, the lower white: the irides hazel; the crown of the head, back, and coverts of the wings are of a fine bluish grey: a black stroke passes over the eye from the mouth: the cheeks and chin are white: the breast
Descr.

O

and

and belly of a dull orange color ; the quill-feathers dusky ; the wings underneath are marked with two spots, one white at the root of the exterior quills ; the other black at the joint of the bastard wing ; the tail consists of twelve feathers ; the two middle are grey ; the two exterior feathers tipped with grey, then succeeds a transverse white spot ; beneath that the rest is black ; the legs are of a pale yellow ; the back toe very strong, and the claws large.

This bird runs up and down the bodies of trees, like the woodpecker tribe ; and feeds not only on insects, but nut kernels ; it is a pretty sight, says Mr. *Willoughby*, to see her fetch a nut out of her hoard, place it fast in a chink, and then standing above it with its head downwards, striking it with all its force, breaks the shell, and catches up the kernel : it breeds in the hollows of trees ; if the entrance to its nest be too large, it stops up part of it with clay, leaving only room enough for admission : in autumn it begins to make a chattering noise, being silent for the greatest part of the year. *Doctor Plott* tells us, that this bird, by putting its bill into a crack in the bough of a tree, can make such a violent sound as if it was rending asunder, so that the noise may be heard at least twelve score yards.

Genus IX. The KINGFISHER.

I. The KINGFISHER.

Le Martinet pefcheur. *Belon av.*
218.

Ispida (Isfogel) *Gefner av.* 571.
Aldr. av. iii. 200.

Olin 39. 40.

Wil. orn. 146.

Raii fyn. av. 48.

Pl. enl. 77.

Alcedo ispida. Lin. fyft. 179.

Le Martin-pêcheur. *Briffon av.*
iv. 471.

Piombino, Martino pefcatore,
Pefcatore del re. *Zinan.* 116.

Isfogel. *Muf. Fr. ad.* 16.

Jis-fugl. *Brunnich in Append.*

Meerfchwalbe. *Kram.* 337.

Br. Zool. 82. plate I.

THIS bird weighs an ounce and a quarter : *Descr.*
its length is seven inches ; its breadth eleven :
its fhape is very clumsy, the head and bill being very
large, and the legs difproportionably fmall : the bill
is two inches long ; the upper mandible black, the
lower yellow : the irides are red : the colors of this
bird atone for its inelegant form : the crown of the
head, and the coverts of the wings are of a deep
blackifh green, spotted with bright azure : the fca-
pular feathers, and coverts of the tail are alfo of a
moft refplendent azure : the whole underfide of the
body is orange colored ; a broad mark of the fame
paffes from the bill beyond the eyes ; beyond that is
a large white fpot : the tail is fhort, and confifts of
twelve feathers of a rich deep blue : the feet are
of a reddifh yellow : the three lower joints of the
outmoft toe adhere to the middle toe : the inner toe
adheres to it by one joint.

The kingfifher frequents the banks of rivers, and

feeds on fish. To compare small things to great, it takes its prey after the manner of the *osprey*, balancing itself at a certain distance over the water for a considerable space, then darting below the surface, brings the prey up in its feet. While it remains suspended in the air, in a bright day, the plumage exhibits a most beautiful variety of the most dazzling and brilliant colors. This striking attitude did not escape the notice of the antients, for *Ibycus*, as quoted by *Athenæus*, styles these birds ἀλκυωνες τανυσσιπτεροι *, the *balcyons* with expanded wings. It makes its nest in holes in the sides of the cliffs, which it scoops to the depth of three feet; and lays from five to nine eggs †, of a most beautiful semi-transparent white. The nest is very fetid, by reason of the remains of the fish brought to feed the young.

This species is the ἀλκυων αἰωνος, or mute *balcyon* of *Aristotle* ‡, which he describes with more precision than is usual with that great philosopher: after his description of the bird, follows that of its nest, than which the most inventive of the antients have delivered nothing that appears more fabulous and extravagant. He relates, that it resembled those concretions that are formed by the sea-water; that it resembled the long necked gourd, that it was hollow within, that the entrance was very narrow, so that should it overset the water could not enter; that it resisted any violence from iron, but could be broke with a blow of the

* P. 388.

† *Gesner* says he found nine young in one nest.

‡ *Hist. an.* 892. 1050.

hand; and that it was composed of the bones of the *Βελδύνη* or sea-needle *.

Yet much of this seems to be founded on truth. The form of the nest agrees most exactly with the curious account of it that count *Zinanni* has favored us with †. The materials which *Aristotle* says it was composed of, are not entirely of his own invention. Whoever has seen the nest of the kingfisher, will observe it strewed with the bones and scales of fish; the fragments of the food of the owner and its young: and those who deny that it is a bird that frequents the sea, must not confine their ideas to our northern shores; but reflect, that birds that inhabit a sheltered place in the more rigorous latitudes, may endure exposed ones in a milder clime. *Aristotle* made his observations in the east: and allows, that the *halcyon* sometimes ascended rivers ‡; possibly to breed: for we learn from *Zinanni*, that in his soft climate, *Italy*, it breeds in *May*, in banks of streams that are near the sea; and having brought up the first hatch, returns to the same place to lay a second time.

On this foundation, the succeeding writers formed several other tales equally absurd; and the poets, indulging the powers of imagination, dressed the story

* 1050. See also *Ælian*. lib. ix. c. 17. *Plin*. lib. x. c. 32.

† Nidifica egli nelle ripe degli acquidotti, o de piccoli torrenti vicino al mare, formando però il nido nei siti più alti di dette ripe, acciocchè l'escrescenza delle acque non possa insinuarsi nel di lui foro; e fa egli detto nido incavando internamente il terreno in tondo per la lunghezza di tre piedi, e riducendo il fine di detto foro a foggia di battello, tutto coperto di scaglie di pesci, che restano vagamente intrecciate; ma forse non sono così disposte ad arte, bensì per accidente.

‡ *Ἀναβαίνει δὲ τε ἐπὶ πρὸς ποταμούς*. Hist. an. 1050.

in all the robes of romance. This nest was a floating one ;

Incubat *halcyone* pendentibus æquore nidis *.

It was therefore necessary to place it in a tranquil sea, and to supply the bird with charms to allay the fury of a turbulent element during the time of its incubation ; for it had, at that season, power over the seas and the winds.

Χ' ἄλκυόνης φορσεῦντι τὰ κύματα, την τε θάλασσαν,

Τόν τε νότον, τον τ' εὐρον, ὃς ἔσχατα φυκία κινεῖ·

Ἀλκυόνης, γλαυκαῖς Νηρηΐσι ταί τε μάλιχα

Ορνίθων ἐφίλαδεν.

Theocrit. Idyl. vii. l. 57 †.

These birds were equally favorites with *Thetis* as with the *Nereids* ;

Dilectæ *Thetidi* Halcyones.

Virg. Georg. l. 399.

As if to their influence these deities owed a repose in the midst of the storms of winter, and by their means were secured from those winds that disturbed their submarine retreats, and agitated even the plants at the bottom of the ocean.

Such are the accounts given by the *Roman* and *Sicilian* poets. *Aristotle* and *Pliny* tell us, that this bird is most common in the seas of *Sicily* : that it sat only a few days, and those in the depth of winter ; and during that period the mariner might sail in full security ; for which reason they were styled, *Halcyon days* ‡.

* *Ovid. Met. lib. xi.*

† May *Halcyons* smoothe the waves, and calm the seas,
And the rough south-east sink into a breeze ;
Halcyons of all the birds that haunt the main,
Most lov'd and honor'd by the *Nereid* train.

Faewkes.

‡ *Arist. hist. an. 541. Plin. lib. x. c. 32. lib. xviii. c. 24.*
Ἀλκυονεῖαι ἡμέραι of the former ; and *dies halcyonides* of the latter.

Peirque

Perque dies placidos hiberno tempore septem

Incubat *halcyone* pendentibus æquore nidis :

Tum via tuta maris : ventos custodit, et arcet

Æolus egressu *.

Ovid. Met. lib. xi.

In after times, these words expressed any season of prosperity : these were the *Halcyon days* of the poets ; the brief tranquillity ; the *septem placidi dies* of human life.

The poets also made it a bird of song : *Virgil* seems to place it in the same rank with the *goldfinch* ;

Littoraque *halcyonem* resonant, & *acanthida* dumi.

Georg. III. 338.

And *Silius Italicus* celebrates its music, and its floating nest :

Cum sonat *halcyone* cantu, nidosque natantes

Immotâ gestat sopitis fluctibus undâ. Lib. XIV. 275.

But we suspect that these writers have transferred to our species, the harmony that belongs to the *vocal alcedo* of the philosopher, καὶ ἡ μὲν φθίγγεται, καθιζάνουσα ἐπὶ τῶν δονάκων †, which was vocal and perched upon reeds. *Aristotle* says, it is the lest of the two, but that both of them have a cyanean back ‡. *Belon* labors to prove the *vocal alcedo* to be the *rousserolle*, or the *greater reed sparrow* ||, a bird found in *France* and some other parts of *Europe*, and of a very fine note : it is true that it is conversant among reeds, like the

* *Alcyone* compress'd,

Seven days sits brooding on her watery nest

A wintry queen ; her fire at length is kind,

Calms every storm and hushes every wind.

Dryden.

† *Hist. an.* 892.

‡ Νῶτον κυανέον, the color of the *cyaneus*, or *lapis lazuli*.

|| *Le Rousserolle*, *Belon av.* 221. *Le Roucherolle*, *Briffon av.* ii. 218. *Greater reed sparrow*, *Wil. orn.* 143. *Turdus arundinaceus*, *Lin. syst. sp.* 296.

bird described by *Aristotle* ; but as its colors are very plain, and that striking character of the fine blue back is wanting, we cannot assent to the opinion of *Belon* ; but rather imagine it to be one of the lost birds of the antients.

Those who think we have said too much on this subject, should consider how incumbent it is on every lover of science, to attempt placing the labors of the antients in a just light : to clear their works from those errors, that owe their origin to the darkness of the times ; and to evince, that many of their accounts are strictly true ; many founded on truth ; and others contain a mixture of fable and reality, which certainly merit the trouble of separation. It is much to be lamented that travellers, either on classic or any other ground, have not been more assiduous in noting the zoology of those countries, which the antients have celebrated for their productions : for, from those who have attended to that branch of natural knowledge, we have been able to develope the meaning of the old naturalists ; and settle with precision some few of the animals of the antients.

Italy, a country crowded with travellers of all nations, hath not furnished a single writer on classical zoology. The *East* has been more fortunate : *Belon*, the first voyager who made remarks in natural history during his travels, mentions many of the animals of the places he visited, and may be very useful to ascertain those of *Aristotle*, especially as he has given their modern *Greek* names. Our countryman, Dr. *Russel*, enumerates those of *Syria*. Dr. *Hasselquist* has made some additions to the ornithology of *Egypt* :
but

but all these fall short of the merits of that most learned and inquisitive traveller, Dr. *Shaw*; who with unparalled learning and ingenuity, has left behind him the most satisfactory, and the most beautiful comments on the animals of the antients, particularly those mentioned in HOLY WRIT or what relates to the *Ægyptian* mythology: such as do honor to our country, and we flatter ourselves will prove incentives to other travellers, to complete what must prove unequal to any one genius, be it ever so great: from such we may be supplied with the means of illustrating the works of the antient naturalists; whilst commentators, after loading whole pages with unenlightening learning, leave us as much in the dark, as the age their authors wrote in.

Genus X. The C R E E P E R.

I. The C R E E P E R.

- | | |
|---------------------------------------|--|
| Le petit Grimpereau. <i>Belon av.</i> | Le Grimpereau. <i>Briffon</i> iii. 603. |
| 375. | <i>Cat. Carol.</i> app. 37. |
| <i>Certhia. Gesner av.</i> 251. | <i>Certhia familiaris. Lin. syst.</i> 184. |
| <i>Aldr. av.</i> i. 424. | <i>Krypare. Faun. Suec. sp.</i> 106. |
| <i>Wil. orn.</i> 144. | <i>Træc-Pikke v. Lie-Hesten. Br.</i> |
| <i>Raii syn. av.</i> 47. | p. 12. |
| The Oxeye Creper. <i>Charlton</i> | <i>Baumlaufferl. Kram.</i> 337. |
| ex. 93. | <i>Br. Zool.</i> 82. plate K. |
| <i>Picchio piccolo. Zinan.</i> 75. | |

THE creeper weighs only five drams: and next to the crested wren is the least of the *British* birds: the manner it has of ruffling its feathers, and their length

length give it a much larger appearance than is real.

Descr. The length of this bird is five inches and a half: the breadth seven and a half: the bill is hooked like a sickle: the irides hazel: the legs slender: the toes and claws very long, to enable it to creep up and down the bodies of trees in search of insects, which are its food: it breeds in hollow trees; and lays sometimes twenty eggs: the head and upper part of the neck are brown, streaked with black: the rump is tawny: the coverts of the wings are variegated with brown and black: the quill-feathers dusky, tipped with white, and edged and barred with tawny marks: the breast and belly are of a silvery white: the tail is very long, and consists of twelve stiff feathers; notwithstanding Mr. *Willoughby*, and other ornithologists give it but ten: they are of a tawny hue, and the interior ends of each slope off to a point.

Genus

Genus XI. The HOOPOE.

I. The HOOPOE.

La Huppe. *Belon av.* 293.Upupa. *Gesner av.* 776.*Aldr. av.* ii. 314.Bubbola. *Olin* 36.The Hoop, or Hoopoe. *Wil.**orn.* 145.*Raii syn. av.* 48.The Dung Bird. *Charlton ex.*98. *tab.* 99.*Plott's Oxf.* 177.*Edw.* 345.*Pl. enl.* 52.La Hupe ou Puput. *Briffon av.*ii. 455. *tab.* 43.Upupa epops. *Lin. syst.* 183.Harfogel, Pop. *Faun. Suec.**sp.* 105.Her-fugl. *Brunnich* 43.Widhopf. *Kram.* 337.

Upupa; arquata stercoraria;

gallus lutosus. *Klein Stem. av.*24. *tab.* 25.*Br. Zool.* 83. plate L.

THIS bird may be readily distinguished from all others that visit these islands by its beautiful crest, which it can erect or depress at pleasure: it weighs three ounces: its length is twelve inches: its breadth nineteen: the bill is black, two inches and a half long, slender, and incurvated: the tongue triangular, small, and placed low in the mouth: the irides are hazel: the crest consists of a double row of feathers; the highest about two inches long: the tips are black, their lower part of a pale orange color: the neck is of a pale reddish brown: the breast and belly white; but in young birds marked with narrow dusky lines pointing down: the lesser coverts of the wings are of a light brown: the back, scapulars and wings crossed with broad bars of white and black: the rump is white: the tail consists of only ten feathers, white marked with black, in form of a crescent,

crescent, the horns pointing towards the end of the feathers. The legs are short and black : the exterior toe is closely united at the bottom to the middle toe.

According to *Linnaeus* it takes its name from its note *, which has a sound similar to the word ; or it may be derived from the *French* *huppè*, or crested : it breeds in hollow trees, and lays two ash-colored eggs: it feeds on insects ; the antients believed that it made its nest of human excrement : the country people in *Sweden* look on the appearance of this bird as a presage of war ;

————— *Facies armata videtur †.*

And formerly the vulgar in our country esteemed it a forerunner of some calamity : it visits these islands frequently ; but not at stated seasons, neither does it breed with us.

* *Faun. Suec.* 2d edit. 37.

† *Ovid* says, *Tereus* was changed into this bird :

Vertitur in volucrem, cui stant in vertice cristæ,

Prominet immodicum pro longa cuspidè rostrum :

Nomen *Epops* volucris.

Metam. lib. vi. l. 672.

Genus

Genus XII. The CHOUGH.

I. The CORNISH CHOUGH.

Scurapola. *Belon obs.* 12.La Chouette ou Chouca rouge,
Belon av. 286.Pyrrhocorax graculus faxatilis.
(Stein-tahen, Stein-frae) *Ges-*
ner av. 522, 527.Spelvier, Taccola. *Aldr. av.* i.
386.*Wil. orn.* 126.*Raii syn. av.* 40.The Killegrew. *Charlton ex.* 75.Cornwall Kae. *Sib. Scot.* 15.*Borlase Cornw.* 249. *tab.* 24.*Camden vol.* i. 14.Le Coracias. *Briffon av.* ii. 4.
tab. 1.Corvus graculus. *Lin. syst.* 158.Monedula pyrrhocorax. *Hassel-*
quist itin. 238.*Br. Zool.* 83. plate L *.

THIS species is but thinly scattered over the northern world: no mention is made of it by any of the *Faunists*; nor do we find it in other parts of *Europe*, except *England*, and the *Alps* *. In *Asia*, the island of *Candia* produces it †. In *Africa*, *Ægypt*: which last place it visits towards the end of the inundations of the *Nile* ‡. Except *Ægypt* it affects mountanous and rocky situations; and builds its nest in high cliffs, or ruined towers, and lays four or five eggs white spotted with a dirty yellow. It feeds on insects, and also on new sown corn: they commonly fly high, make a shriller noise than the jackdaw, and may be taught to speak. It is a very tender bird, and unable to bear very severe weather; is of an ele-

* *Plin. nat. hist. lib.* 10. c. 48. *Briffon* ii. 5.† *Belon obs.* 17.‡ *Hasselquist itin.* 240.

gant, slender make, active, restless, and thieving; much taken with glitter, and so meddling as not to be trusted where things of consequence lie. It is very apt to catch up bits of lighted sticks; so that there are instances of houses being set on fire by its means; which is the reason that *Camden* calls it *incendiaria avis*. Several of the *Welsh* and *Cornish* families bear this bird in their coat of arms. It is found in *Cornwall*, *Flintshire*, *Caernarvonshire*, and *Anglesea*, in the cliffs and castles along the shores.

Descr. Its weight is thirteen ounces; the breadth thirty-three inches: the length sixteen: its color is wholly black, beautifully glossed over with blue and purple: the legs and bill are of a bright orange inclining to red, the tongue almost as long as the bill, and a little cloven: the claws large, hooked, and black.

Genus XIII. The G R O U S.

* With legs feathered to the feet: broad scarlet eye-brows.

** With naked legs.

I. The COCK OF THE WOOD.

The HEN OF THE WOOD.

- | | |
|---|--|
| Le Coc de bois ou Faisan bruyant. | Capricalca. <i>Sib. Scot.</i> 16. tab. |
| <i>Belon av.</i> 249. | 14, 18. |
| Urogallus major (the Male.) | Le cocque de Bruyeres. <i>Briffon</i> |
| <i>Gesner av.</i> 490. | <i>av.</i> i. 182. |
| Grygallus major (the Female.) | Tetrao urogallus. <i>Lin. syst.</i> 273. |
| 495. | Kjader. <i>Faun. Suec. sp.</i> 200. |
| Gallo cedrone, Urogallus five | <i>Pontop.</i> ii. 101. |
| Tetrao. <i>Aldr. av.</i> ii. 29. | Tjader-hona, <i>Hasselquist itin.</i> |
| Gallo alpestre, Tetrao <i>Nemefiani</i> | † 571. |
| (fem.) <i>Ald. av.</i> ii. 33. | <i>Klein Stem. tab.</i> 27. |
| Pavo sylvestris. <i>Girald. Topogr.</i> | Mas Norvegis Tiur, Teer, Toed- |
| <i>Hibern.</i> 706. | der. Foemina <i>Norv.</i> Roey. |
| Cock of the Mountain, or Wood. | <i>Brunnich</i> 194. |
| <i>Wil. orn.</i> 172. | <i>Aurhan. Kram.</i> 356. |
| <i>Raii syn. av.</i> 53. | <i>Br. Zool.</i> 84. plates M. M *. |
| <i>Pl. enl.</i> 73. 74. | |

THIS species is found in no other part of *Great Britain* than the northern highlands of *Scotland*; and even there not frequently. We believe that the breed is extinct in *Ireland*, where it was for-

† *Swedish* edition. This bird was shot in the isle of *Milo*, on a palm tree. *Belon* tells us, it is often found in *Crete*, *Obs.* p. 11. The *English* translator of *Hasselquist* gives a false name to the bird, calling it the *Black Game*.

merly

merly found ; it inhabits wooded and mountainous countries ; in particular, forests of pines, birch-trees, and junipers ; feeding on the tops of the former, and berries of the latter ; which often infects the flesh with such a taste, as to render it scarce eatable. It lays from six to eight eggs.

Descr.

The length of the male is two feet eight inches ; the breadth three feet ten ; its weight sometimes fourteen pounds. The female is much less, the length being only twenty-six inches ; the breadth forty. The sexes differ also greatly in colors. The bill of the male is of a pale yellow : the nostrils are covered with dusky feathers : the head, neck and back are elegantly marked, slender lines of grey and black running transversely. The feathers on the hind part of the head are long, and beneath the throat is a large tuft of long feathers. The upper part of the breast is of a rich glossy green, the rest of the breast and the belly black, mixed with some white feathers : the sides are marked like the neck : the coverts of the wings crossed with undulated lines of black and reddish brown : the exterior webs of the greater quill feathers are black : at the setting on of the wings is a white spot ; the inner coverts are of the same color : the tail consists of eighteen feathers, the middle of which is the longest ; they are black, marked on each side with a few white spots : the vent feathers black mixed white. The legs very strong, covered with brown feathers : the edges of the toes pectinated.

The female differs greatly from the male : the bill is dusky : the throat red : the head, neck and back are marked with transverse bars of red and black ;
the

the breast has some white spots on it, and the lower part is of a plain orange color : the tail is of a deep rust color barred with black.

II. The BLACK COCK.

- | | |
|--|---|
| Urogallus minor (the male.) | Tetrao tetrix. <i>Lin. syst.</i> 274. |
| <i>Gesner av.</i> 493. Grygallus | Orre, <i>Faun. Suec. sp.</i> 102. |
| minor (the female.) 496. | Le Coq-de-bruyeres a queue |
| Fasan negro, Fasiano alpestre, | fourchue. <i>Briffon av.</i> i. 186. |
| Urogallus five Tetrao minor | <i>Cimbris mas</i> Urhane, <i>fæmina</i> |
| Gallus Scoticus sylvestris. <i>Aldr.</i> | Urhoene. <i>Norvegis</i> Orrfugl. |
| <i>av.</i> ii. 32. 160. | <i>Brunnich</i> 196. |
| <i>Raii syn. av.</i> 53. | Berkhan, Schildhan. <i>Kram.</i> 356. |
| Heath-cock, black Game, or | <i>Br. Zool.</i> 85. <i>tab.</i> M. 1. 2. |
| Grouse. <i>Wil. orn.</i> 173. | |

THESE birds, like the former, are fond of wooded and mountanous situations ; they feed on bilberries, and other mountain fruits ; and in the winter on the tops of the heath. They are often found in woods ; this and the preceding species perching like the pheasant : in the summer they frequently descend from the hills to feed on corn : they never pair ; but in the spring the male gets upon some eminence, crows and claps his wings * ; on which signal all the females within hearing resort to him : the hen lays seldom more than six or seven eggs. The young males quit their mother in the beginning of winter ; and keep in flocks of seven or eight till spring ; during

* The ruffed heathcock of *America*, a bird of this genus, does the same. *Edw. Gl.* p. 80. The cock of the wood agrees too in this exultation during the amorous season ; at which time the peasants in the *Alps*, directed by the sound, have an opportunity of killing them.

that time they inhabit the woods: they are very quarrelsome, and will fight together like game cocks; and at that time are so inattentive to their own safety, that it has often happened that two or three have been killed at one shot.

Descr. An old black cock will weigh near four pounds; its length is one foot ten inches; its breadth two feet nine: the bill is dusky: the plumage of the whole body black, glossed over the neck and rump with a shining blue. The coverts of the wings are of a dusky brown: the four first quill feathers are black; the next white at the bottom; the lower half of the secondary feathers white, and the tips are of the same color: the inner coverts of the wings white: the thighs and legs are covered with dark brown feathers; on the former are some white spots: the toes resemble those of the former species. The tail consists of sixteen black feathers, and is much forked; the exterior feathers bend greatly outwards, and their ends seem as if cut off. The feathers under the tail and inner coverts of the wings are of a pure white.

The female weighs only two pounds; its length is one foot six inches; its breadth two feet six. The head, neck and breast are marked with alternate bars of dull red and black. The back, coverts of the wings and tail are of the same colors, but the red is deeper: the inner webs of the quill feathers are mottled with black and white: the inner coverts of the wings are white; and in both sexes form a white spot on the shoulder. The tail is slightly forked; it consists of eighteen feathers variegated with red and black. The feathers under the tail are white, marked

with

with a few bars of black and orange. This bird hatches its young late in the summer. It lays from six to eight eggs, of a dull yellowish white color, marked with numbers of very small ferruginous specks; and towards the smaller end with some blotches of the same hue.

Besides the common species of black cock, M. Briffon mentions a variety found in *Scotland*, under the name of *le coq de bruyere piqueté*, or spotted black cock. It differs from the common sort in being spotted on the neck, breast, wings and thighs with red. The female is grey spotted with black; and both sexes are marked on their lower sides with white. This kind has not fallen within our notice; but M. Briffon's account has been confirmed to us by a gentleman who a few years ago visited the *Highlands* of *North Britain*: it is also found in *Sweden*, and described by *Linnaeus* in his *Faun. Suec. sp. 201.* by the title of *Tetrao caudâ bifurcâ subtus albo punctata*, in *Swedish*, *Racklehane* or *Roflare*: the legs of this and the preceding kind are feathered only to the feet: they both inhabit woods in the winter; therefore nature hath not given them the same kind protection against the cold, as she has the grouse and ptarmigan, who must undergo all the rigor of the season beneath the snow, or on the bare ground.

III. The G R O U S.

Gallina campestris. Girald. topogr. Hibern. 706. Moor-cock, or Moor-fowl. *Sib. Scot. 16.*

Red Game, Gorcock, or Moor-cock. *Wil. orn. 177.* La Gelinote Hupée. *Briffon av. i 209.*

Lagopus altera Plinii. Raii syn. av. 54. La Gelinote d'Ecosse, Bonasa Scotica. *Idem 199. tab. 22. f. 1. Br. Zool. 85. plate M. 3.*

Defer. **T**HE male weighs about nineteen ounces. The length is fifteen inches and a half: the breadth twenty-six. The bill is black: the nostrils covered with red and black feathers: the irides hazel colored. At the base of the lower mandible, on each side, is a white spot: the throat is red. The plumage on the head and neck is of a light tawny red; each feather is marked with several transverse bars of black. The back and scapular feathers are of a deeper red, and on the middle of each feather is a large black spot: the breast and belly are of a dull purplish brown, crossed with numerous narrow dusky lines: the quill feathers are dusky: the tail consists of sixteen feathers of an equal length, all of them (except the four middlemost) are black, and the middle feathers are barred with red: the thighs are of a pale red, barred obscurely with black: the legs and feet cloathed to the very claws with thick soft white feathers; the claws are whitish, very broad and strong.

The female weighs only fifteen ounces. The colors in general are duller than those of the male: the breast and belly are spotted with white: and the tips of some of the coverts of the wings are of the same color.

color. The red naked part that lies above the eyes is less prominent than in the male, and the edges not so deeply fringed.

We believe this species to be peculiar to the *British* islands; not having met with any account of it, except in the writings of our countrymen Mr. *Ray* and *Willoughby*, and in M. *Briffon* under the name of *Bonasa Scotica*; the same writer describes it again by the title of *Atlagen*, but his references are either to authors who have copied our naturalists, or to such who mean quite another kind. Mr. *Ray* seems to think his bird, the other *Lagopus* of *Pliny**, or the *Francolino* of the modern *Italians*: but the account left us by *Pliny* seems too brief and uncertain to determine at this time what species he intended; and that the *Francolino* is not the same with our grouse, is evident from the figure of it exhibited by our accurate friend Mr. *Edwards*†.

These birds pair in the spring, and lay from six to ten eggs: the young brood or packs follow the hen the whole summer; in the winter they join in flocks of forty or fifty, and become remarkably shy and wild: they always keep on the tops of the hills, are scarce ever found on the sides, and never descend into the vallies; their food is the mountain berries, and the tops of heath.

* Est et alia nomine eodem, a coturnicibus magnitudine tantum differens, croceo tinctu cibus gratissima. lib. x. c. 48.

† Plate 246.

IV. The PTARMIGAN.

- La Perdrix blanche. *Belon av.* 259. White Game, erroneously called the white Partridge. *Wil. orn.* 176.
 Lagopus. *Gesner av.* 576. The Ptarmigan. *Sib. Scot.* 16.
 Perdrix alba seu Lagopus, Perdix alpestre. *Aldr. av.* ii. 66. *Pl. enl.* 129.
 Lagopus. *Plinii lib.* x. c. 48. *Norw. Rype. Mas Islandis, Riupkarre, Fæm. Riupa. Brunnich.* 199.
 Tetrao Lagopus. *Lin. syst.* 274. Schneehun. *Kram.* 356.
 Snoripa. *Faun. Suec. sp.* 203. *Br. Zool.* 86. plates M 4. 5.
 La Gelinore blanche. *Briffon av.* i. 216.
Raii syn. av. 55.

THIS bird is well described by Mr. *Willoughby*, under the name of the white game. Mr. *Briffon** joins it with the white partridge of Mr. *Edwards*, plate 72. but these two birds differ greatly; the former being above twice the size of the *Ptarmigan*; and the color of its summer plumage quite different; that of Mr. *Edwards*'s bird being marked with large spots of white, and dull orange; that of the *Ptarmigan* is either of a pale brown or ash-color, motled with small dusky spots; both agree in their winter dress, being intirely white, except as follows: in the male a black line occurs between the bill and the eyes; the shaft of the seven first quill feathers are black: the tail of the *Ptarmigan* consists of sixteen feathers; the two middle of which are ash-colored, motled with black, and tipt with white; the two next black slightly marked with white at their ends, the rest wholly black; the feathers incumbent on the tail white, and

* *Tom. i. p.* 216.

almost reach the end of it. The plate M 5. of the *folio* edition, exhibits a motly variety of the *Ptarmigan*, at a period it had not quite assumed its summer dress: for this figure, and that of the *scaup duck*, the editors of the *folio* edition of this work, are obliged to their worthy countryman (by descent) Mr. *Edwards*, who generously dedicated these last efforts of his genius, to the service of the charity school.

These birds are found in this kingdom in the *Scotish Highlands* only: their weight is near fourteen ounces; their length thirteen inches three-quarters; their breadth twenty-three. These birds are called by *Pliny*, *Lagopi*, their feet being cloathed with feathers to the claws, as the hare's are with fur: the nails are long, broad and hollow: the first circumstance guards them from the rigor of the winter; the latter enables them to form a lodge under the snow, where they lie in heaps to protect themselves from the cold.

V. The P A R T R I D G E.

** With naked Legs.

- | | |
|--|--|
| La Perdrix grise ou Gouache. | Tetrao Perdrix. <i>Lin. syst.</i> 276. |
| <i>Belon av.</i> 257. | Rapphona. <i>Faun. Suec. sp.</i> 205. |
| Perdix (Waldhun) <i>Gesner av.</i> | La Perdrix grise. <i>Briffon av.</i> i. 219. |
| 669. | <i>Pl. enl.</i> 27. |
| Perdix minor five cinerea. <i>Ald.</i> | Starna. <i>Zinan</i> 30. |
| <i>av.</i> ii. 66. | Agerhoene. <i>Br.</i> 201. |
| <i>Wil. orn.</i> 166. | Rebhun. <i>Kram.</i> 357. |
| <i>Raii syn. av.</i> 57. | <i>Br. Zool.</i> 86. plate M. |

Descr.

THE male partridge weighs near fifteen ounces ; the female near two ounces less : the length to the end of the tail thirteen inches ; the breadth twenty. The bill is white ; the crown of the head is brown spotted with reddish white. The chin, cheeks and forehead of a deep orange color, but in the females much paler than in the other sex. The neck and breast are prettily marked with narrow undulated lines of ash-color and black ; and in the hind part of the neck is a strong mixture of rust color : on the breast of the male is a broad mark in form of a horse-shoe, of a deep orange hue ; in the female it is less distinct : each feather on the back is finely marked with several semicircular lines of reddish brown and black : the scapulars with a narrow white line along their shafts, and with black and reddish blotchy bars on their webs : the greater quill-feathers are dusky, spotted on each web with pale red : it has eighteen feathers in the tail ; the six outmost on each side are of a bright rust color ; the others marked transversely with irregular lines of pale reddish brown and black : the legs are of a whitish cast.

The

The nature of this bird is so well known, that it will be unnecessary to detain the readers with any account of it: all writers agree, that its passion for venery exceeds that of any bird of the genus; should the readers curiosity be excited to see a more particular account, we beg leave to refer them to those authors who have recorded this part of its natural history*.

VI. The Q U A I L.

La Caille. *Belon av.* 263.

Gesner av. 334.

Coturnix Latinorum. *Aldr. av.*
ii. 69.

Wil. orn. 169.

Raii syn. av. 58.

La Caille. *Briffon av.* i. 247.

Quaglia. *Zinan* 36.

Tetrao coturnix. *Lin. syst.* 278.

Wachtel. *Faun. Suec. sp.* 206.

Vagtel. *Brunnich* 202.

Wachtel. *Kram.* 357.

Br. Zool. 87. plate M 6.

THE length of the Quail is seven inches and a half; the breadth fourteen: the bill is of a dusky color: the feathers of the head are black, edged with rusty brown: the crown of the head is divided by a whitish yellow line, beginning at the bill and running along the hind part of the neck to the back: above each eye is another line of the same color: the chin and throat are of a dirty white: the cheeks spotted with brown and white: the breast is of a pale yellowish red spotted with black: the scapular feathers and those on the back are marked in their middles with a long pale yellow line, and on their sides with ferruginous and black bars: the

Descr.

* *Pliny lib.* 10. c. 29. *Wil. orn.* 168. *Edw. preface to Gleanings,* part 2.

coverts of the wings are reddish brown, elegantly barred with paler lines bounded on each side with black. The exterior side of the first quill-feather is white, of the others dusky spotted with red : the tail consists of twelve short feathers barred with black and very pale brownish red : The legs are of a pale hue.

Quails are found in most parts of *Great-Britain* ; but not in any quantity : they are birds of passage ; some entirely quitting our island, others shifting their quarters. A gentleman, to whom this work lies under great obligations for his frequent assistance, has assured us, that these birds migrate out of the neighbouring inland counties, into the hundreds of *Essex*, in *October*, and continue there all the winter : if frost or snow drive them out of the stubble fields and marshes, they retreat to the sea-side ; shelter themselves among the weeds, and live upon what they can pick up from the *algæ*, &c. between high and low water mark. Our friend remarks, that the time of their appearance in *Essex*, coincides with that of their leaving the inland counties.

These birds are much less prolific than the partridge, seldom laying more than six or seven whitish eggs, marked with ragged rust colored spots : they are very easily taken, and may be enticed any where by a call.

They are birds of great spirit ; insomuch that quail fighting among the *Athenians* was as great an entertainment as cock fighting is in this country. The antients never eat this bird, supposing them to have been unwholesome, as they were said to feed on *Hellebore*.

To the birds of this genus we should add the whole tribe of domestic land fowl, such as *Peacocks*, *Pheasants*, &c. but these cannot clame even an *European* origin.

India

India gave us *Peacocks*; and we are assured * they are still found in the wild state, in vast flocks, in the islands of *Ceylon* and *Java*. So beautiful a bird, could not long be permitted to be a stranger in the more distant parts; for so early as the days of *Solomon* †, we find, among the articles imported in his *Tharshish* navies, *Apes* and *Peacocks*. A monarch so conversant in all branches of natural history, who spoke of trees from the cedar of *Libanon*, even unto the *byssop* that springeth out of the wall: who spoke also of beasts and of fowl, would certainly not neglect furnishing his officers with instructions for collecting every curiosity in the countries they voyaged to, which gave him a knowlege that distinguished him from all the princes of his time. *Ælian* ‡ relates, that they were brought into *Greece* from some barbarous country; and that they were held in such high esteem, that a male and female were valued at *Athens* at 1000 *drachmæ*, or 32*l.* 5*s.* 10*d.* We are also told, when *Alexander* was in *India* §, he found vast numbers of wild ones on the banks of the *Hyarotis*, and was so struck with their beauty, as to appoint a severe punishment on any person that killed them.

Our common *poultry* came originally from *Persia* and *India*. *Aristophanes* || calls the cock *περσικὸς ὄρνις*, the *Persian* bird; and tells us, it enjoyed that kingdom before *Darius* and *Megabyzus*: at this time we know that these birds are found in a state of nature in the isles of *Tinian* **, and others of the *Indian* ocean;

* *Knox's hist. of Ceylon.* 28.

† *Kings* i. 10.

‡ *Ælian de nat. an.* lib. v. 21. § *2. Curtius*, lib. ix.

|| *Aves*, lin. 483.

** *Dampier's voy.* i. 392. *Lord Anson's voy.* 309.

and that in their wild condition their plumage is black and yellow, and their combs and wattles purple and yellow*. They were early introduced into the western parts of the world; and have been very long naturalized in this country: *Cæsar* informing us, they were one of the forbidden foods of the *old Britains*.

Pheasants were first brought into *Europe* from the banks of the *Phasis*, a river of *Colchis*.

Argiva primùm sum transportata carina

Ante mihi notum nil, nisi *Phasis* erat.

Martial. lib. xiii. ep. 72.

Guinea hens, the *Meleagrides* or *Gallinæ numidicæ* of the antients, came originally from *Africa*†. We are much surprized how *Belon* and other learned ornithologists could possibly imagine them to have been the same with our *Turkies*; since the descriptions of the *meleagri* left us by *Athenæus* and other antient writers, agree so exactly with the *Guinea hen*, as to take away (as we should imagine) all power of mistake. *Athenæus* (after *Clytus Milesius*, a disciple of *Aristotle*) describes their nature, form and colors: he tells us, “ They want natural affection towards
“ their young; that their head is naked, and that
“ on the top of it is a hard round body like a peg
“ or nail; that from the cheeks hangs a red piece of
“ flesh like a beard; that it has no wattles like the
“ common poultry; that the feathers are black spot-

* For this information we are indebted to governor *Loten*.

† *Bosman's history of Guinea*. 248. *Voyages de Marchais* iii.

“ted with white ; that they have no spurs ; and that
 “both sexes are so like, as not to be distinguished by
 “the sight *.” *Varro* and *Pliny*† take notice of
 their spotted plumage, and the gibbous substance on
 their head : so that from these citations we find every
 character of the *Guinea hen*, but none that agrees with
 the *Turkey*.

In fact, the *Turkey* was unknown to the antient naturalists, and even to the *old world* before the discovery of *America*. It was a bird peculiar to the new continent, and is now the commonest wild fowl of the nothern parts of that country. It was first seen in *France*, in the reign of *Francis I.* and in *England*, in that of *Henry VIII.* By the date of the reign of these monarchs, the first birds of this kind must have been brought from *Mexico*, whose conquest was completed, A. D. 1521. The short lived colony of the *French* in *Florida* not being attempted before 1562 ; nor our more successful one in *Virginia*, effected till 1585 ; when both those monarchs were in their graves.

Ælian, indeed, mentions a bird found in *India*‡ that some writers have suspected to be the *Turkey*, but

* “Ἔστι δὲ ἄστρογον πρὸς τὰ ἐκγονα τὸ ὄρνεον, καὶ ὀλιγωρεῖ τῶν νεωτέρων, —ἐπ’ αὐτῆς δὲ λόφον σάρκινον σκληρὸν, στρογγύλον ἐξέκοντα τῆς κεφαλῆς ὥσπερ πᾶτταλον — πρὸς δὲ ταῖς γνάθοις ἀπὸ τῆς σώματος ἀρξάμενην αἰὲς πύγων μακρὰν σάρκα, καὶ ἐρυθρόεραν τῶν ὀρνιδῶν τὴν δὲ τοῖς ὀρνισιν ἐπὶ τῷ ῥύχει γινομένην, ἣν ἔνιοι πύγωνα καλεῖσιν, ἣν ἔχει, διὰ καὶ ταύτην κολοβὸν ἔστι. — σῶμα ἅπαν ποικίλον, μέλαν ὅλος τε χρώματι ὅλα πτεροῖς λευκοῖς — σκέλη καὶ ἀκνῆτρα — παραπλήσια δὲ εἰσὶν αἱ θήλειαι τοῖς ἀρρεσιν διὸ καὶ δυσδιάκριτόν ἐστι τὸ τῶν μελεαγρίδων γένος. *Athenæus* 655.

† *Varro*. lib. 3. c. 9. *Pliny*. lib. 10. c. 26.

‡ *Æliani hist. an.* lib. xvi. c. 2.

we conclude with *Gesner*, that it was either the *Peacock*, or some bird of that genus. On consulting some gentlemen who have long resided in the *Indies*, we find, that though the *Turkey* is bred there, it is only considered as a domestic bird, and not a native of the country.

Genus XIV. The B U S T A R D.

I. The B U S T A R D.

L'Ostarde. *Belon av.* 235.

Edw. tab. 73, 74.

Otis, vel Bistarda. *Gesner av.* 484, 486.

L'Outarde. *Briffon av.* v. 18.

Otis tarda. *Lin. syst.* 264.

Otis five Tarda. *Aldr. av.* ii. 39.

Faun. Suec. sp. 196.

Wil. orn. 178.

Trap. *Kram.* 355.

Raii syn. av. 58.

Br. Zool. 87. plate N.

Descr. **T**HE bustard is the largest of the *British* land fowl; the male at a medium weighing twenty-five pounds; there are instances of some very old ones weighing twenty-seven. The breadth nine feet; the length near four. Besides the size and difference of color; the male is distinguished from the female by a tuft of feathers about five inches long on each side the lower mandible. Its head and neck are ash-colored: the back is barred transversely with black and bright rust color: the greater quill feathers are black: the belly white: the tail is marked with broad red and black bars, and consists of twenty feathers: the legs dusky.

The

The female is about half the size of the male: the crown of the head is of a deep orange traversed with black lines; the rest of the head is brown. The lower part of the foreside of the neck is ash-colored: in other respects it resembles the male, only the colors of the back and wings are far more dull.

These birds inhabit most of the open countries of the south and east parts of this island, from *Dorsetshire*, as far as *Merch* and *Lothian* in *Scotland* *. They are exceeding shy, and difficult to be shot; run very fast, and when on the wing can fly, though slowly, many miles without resting. It is said that they take flight with difficulty, and are sometimes run down with grehounds. They keep near their old haunts, seldom wandering above twenty or thirty miles. Their food is corn and other vegetables, and those large earth-worms that appear in great quantities on the *Downs*, before sun-rising in the summer. These are replete with moisture, answer the purpose of liquids, and enable them to live long without drinking on those extensive and dry tracts. Besides this, nature hath given the males an admirable magazine for their security against drought, being a pouch †, whose entrance lies immediately under the tongue, and which is capable of holding near seven quarts; and this they probably fill with water, to supply the hen when

* *Sib. Scot.* 16.

† The world is obliged to the late Dr. *Douglas* for this discovery; and to Mr. *Edwards* for communicating it.

sitting, or the young before they can fly. Bustards lay only two eggs, of the size of those of a goose, of a pale olive brown, marked with spots of a darker color; they make no nest, only scrape a hole in the ground. In autumn they are (in *Wiltshire*), generally found in large turnep fields near the Downs, and in flocks of fifty or more.

To this bird we may add the little Bustard of Mr. Edwards, tab. 251. The *Canne petiere* of the French, *Wil. orn.* 179. one of which was shot in *Cornwal* 1751. this being the only one that we have heard of in this kingdom, and probably a strayed bird, it must be denied a place in this work.

Genus XV. PIGEONS.

I. The COMMON PIGEON.

- | | |
|--|---------------------------------------|
| La Pigeon privé. <i>Belon av.</i> 313. | Le Pigeon domestique. <i>Brissot</i> |
| <i>Columba vulgaris. Gesner av.</i> | <i>av.</i> i. 68. |
| 279. <i>Livia. 307.</i> | Le Bifet. 82. |
| <i>Columba domestica. Aldr. av.</i> | <i>Columba Oenas. Lin. syst.</i> 279. |
| ii. 225. | Skogs dufwa, Dufwa, Hem- |
| Common wild Dove, or Pigeon. | dufwa. <i>Faun. Suec. sp.</i> 207. |
| <i>Wil orn.</i> 180. and the Stock | Kirke-Due, Skov-Due. <i>Brunnich.</i> |
| Dove, or Wood Pigeon*. | 203. |
| 185. | Feldtaube, Haustaube, Hohl- |
| <i>Raii syn. av.</i> 59, 62. | taube. <i>Kram.</i> 358. |
| | <i>Br. Zool.</i> 88. plate 88. |

THE tame pigeon, and all its beautiful varieties, derive their origin from one species, the *Stock Dove*: the *English* name implying its being the

* *Columba livia. Aldr. av.* ii. 234. et *Oenas, seu vinago* 233.

Stock or *stem* from whence the other domestic kinds sprung. We never saw this bird in its wild condition; but are obliged to borrow the description partly from Mr. *Willoughby*, partly from a drawing that we were favored with from the magnificent collection of *Taylor White*, esq. Its characters in the state nearest that of its origin, is a deep bluish ash color; the breast dashed with a fine changeable green and purple; the sides of the neck with shining copper color; its wings marked with two black bars, one on the coverts of the wings, the other on the quill-feathers. The back white, and the tail barred near the end with black. In the wild state it breeds in holes of rocks, and hollows of trees, for which reason some writers stile it *columba cavernalis* * in opposition to the Ring Dove, which makes its nest on the boughs of trees. Nature ever preserves some agreement in the manners, characters, and colors of birds reclaimed from their wild state. This species of pigeon soon takes to build in artificial cavities, and from the temptation of a ready provision becomes easily domesticated. The drakes of the tame duck, however they may vary in color, ever retain the mark of their origin from our *English* mallard, by the two curled feathers of the tail: and the tame goose betrays its descent from the wild kind, by the invariable whiteness of its rump, which they always retain in both states.

The varieties produced from the domestic pigeon are very numerous, and extremely elegant; these are distinguished by names expressive of their several pro-

* The *Columba saxatilis*, a small sort, that is frequent on most of our cliffs, is only a variety of the wild pigeon. *Aldr. av. ii. 227.*

perties, such as *Tumblers*, *Carriers*, *Jacobines*, *Croppers*, *Powters*, *Runts*, *Turbits*, *Owls*, *Nuns*, &c.* The most celebrated of these is the *Carrier*, which from the superior attachment that pigeon shews to its native place, is employed in many countries as the most expeditious courier: the letters are tied under its wing, it is let loose, and in a very short space returns to the home it was brought from, with its advices†. This practice was much in vogue in the *East*, and at *Scanderoon*, till of late years‡, used on the arrival of a ship, to give to the merchants at *Aleppo* a more expeditious notice than could be done by any other means. In our own country, these aerial messengers have been employed for a very singular purpose, being let loose at *Tyburn* at the moment the fatal cart is

* *Vide Wil. orn. Moore's Columbarium*, and a treatise on domestic pigeons, published in 1765. The last illustrates the names of the birds, with several neat figures.

† This custom was observed by that legendary traveller, Sir *John Maundevile*, knight, warrior and pilgrim; who, with the true spirit of religious chivalry, voyaged into the *East*, and penetrated as far as the borders of *China*, during the reigns of *Edward II.* and *III.*

In that contree (says he) and other contrees bezonde, thei han a custom, whan thei schulle usen werre, and whan men holden sege abouten cytee or castelle, and thei with innen dur not senden out messagers with letters, fro lord to lord, for to aske sokour, thei maken here letters and bynden hem to the nekke of a *Colver*, and leten the *Colver* flee; and the *Colveren* ben so taughte, that thei fleen with tho letters to the verry place, that men wolde sende hem to. For the *Colveres* ben norysscht in tho places, where thei ben sent to; and thei senden hem thus, for to beren here letters. And the *Colveres* retournen azen, where as thei ben norisscht and so thei don comounly. The voiage & travaile of Sir *J. Maundevile*, knight, ed. 1727.

‡ Dr. *Russel* informs us, that the practice is left off. *Hist. Aleppo*, 66.

drawn

drawn away, to notify to distant friends, the departure of the unhappy criminal.

In the *East*, the use of these birds seems to have been improved greatly, by having, if we may use the expression, relays of them ready to spread intelligence to all parts of the country. Thus the governor of *Damiata* circulated the news of the death of *Orrilo* :

Toſto che'l Caſtellan di *Damiata*
 Certificoſſi, ch'era morto *Orrilo*,
 La *Colomba* laſciò, ch'avea legata
 Sotto l'ala la lettera col filo.
 Quelle andò al *Cairo*, ed indi fu laſciata
 Un' altra altrove, come quivi e ſtilo :
 Si, che in pochiffime ore andò l'avviſo
 Per tutto *Egitto*, ch'era *Orrilo* ucciſo *.

But the ſimple uſe of them was known in very early times : *Anacreon* tells us, he conveyed his billet-doux, to his beautiful *Bathyllus*, by a dove.

Εγὼ δ' Ἀνακρέοντι
 Διακονῶ τοσαῦτα*
 Καὶ νῦν οἷας ἐκείνῃ
 Ἐπιſτολὰς κομίζω †.

I am now *Anacreon's* ſlave,
 And to me entrusted have
 All the o'erflowings of his heart,
 To *Bathyllus* to impart ;
 Each ſoft line, with nimble wing,
 To the lovely boy I bring.

* As ſoon as the commandant of *Damiata* heard that *Orrilo* was dead, he let looſe a pigeon, under whoſe wing he had tied a letter ; this fled to *Cairo*, from whence a ſecond was diſpatched to another place, as is uſual ; ſo that in a very few hours, all *Egypt* was acquainted with the death of *Orrilo*. *Arioſto*, canto 15.

† *Anacreon*, ode 9. εἰς περιτεράν.

Taurosthenes also, by means of a pigeon he had decked with purple, sent advice to his father, who lived in the isle of *Ægina*, of his victory in the *Olympic* games, on the very day he had obtained it*. And, at the siege of *Modena*, *Hirtius* without, and *Brutus* within the walls, kept, by the help of pigeons, a constant correspondence; baffling every stratagem of the besieger *Antony*†, to intercept their couriers. In the times of the *Crusades*, there are many more instances of these birds of peace being employed in the service of war: *Joinville* relates one during the crusade of *Saint Louis*‡; and *Tasso* another, during the siege of *Jerusalem*§.

The nature of pigeons is to be gregarious; to lay only two eggs; to breed many times in the year||; to bill in their courtship; for the male and female to sit by turns, and also to feed their young; to cast their provision out of their craw into the young ones mouths; and to have a note mournful, or plaintive.

* *Ælian var. hist. lib. ix. 2. Pliny, lib. x. c. 24.* says, that swallows have been made use of for the same purpose.

† *Pliny, lib. x. c. 37. Exclames, Quid vallum et vigil obsidio atque etiam retia amne pretenta profuere Antonio, per cælum eunte nuncio?*

‡ *Joinville, 638. app. 35.*

§ *Ariosto, canto xv. 90.*

|| So quick is their produce, that the author of the *Oeconomy of nature* observes, that in the space of four years, 14,760 may come from a single pair. *Stillingfleet's tracts. 75.*

II. The RING-DOVE.

Le Ramier. *Belon av.* 307.Phassa. *Belon obs.* 13.Palumbus. *Gesner av.* 310.

Palumbus major five torquatus.

Aldr. av. ii. 227.Colombaccio. *Olina* 54.

Ring-dove, Queest, or Culhat.

Wil. orn 185.Le Pigeon Ramier. *Briffon av.* i.

89.

Raii syn. av. 62.Columba palumbus. *Lin. syst.**sp.* 282.Ringdufwa, Siutut. *Faun. Suec.**sp.* 208.Wildtaube, Ringtaube. *Kram.*

359.

Dan. Ringel-due, *Bornholmis,**Skude. Brunnich* 204.*Br. Zool.* 89. plate O.

THIS species forms its nest of a few dry sticks in the boughs of trees: attempts have been made to domesticate them, by hatching their eggs under the common pigeon in dove-houses; but as soon as they could fly, they always toke to their proper haunts. In the beginning of the winter they assemble in great flocks, and leave off cooing; which they begin in *March*, when they pair. The ring-dove is the largest pigeon we have; and may be at once distinguished from all others by the size. Its weight is about twenty ounces: its length eighteen inches: its breadth thirty. The head, back, and coverts of the wings are of a bluish ash color: the lower side of the neck and the breast are of a purplish red dashed with ash color; on the hind part of the neck is a semi-circular line of white; above and beneath that the feathers are glossy, and of changeable colors as opposed to the light. The belly is of a dirty white: the greater quill feathers are dusky; the rest

Descr.

ash colored : underneath the bastard wing is a white stroke pointing downwards.

III. The T U R T L E.

La Turtrelle. *Belon av.* 309.

Raii syn. av. 61.

Turtur. *Gesner av.* 316.

Wilde Turtel taube. *Kram.* 359.

Turtur. *Aldr. av.* ii. 235.

Le Tourterelle. *Briffon av.* i.

Tortora. *Olini* 34.

92.

The Turtle-dove. *Wil. orn.* *Br. Zool.* 89 *. plate O 1.

183.

THIS species is found in *Buckinghamshire*, *Gloucestershire*, *Shropshire*, and in the *West of England*. They are shy and retired birds, breeding in thick woods, generally of oak : we believe that they reside in *Buckinghamshire* during the breeding season, migrating into the other countries in autumn. The length is twelve inches and a half ; its breadth twenty-one. The irides are of a fine yellow : a beautiful crimson circle encompasses the eye-lids. The chin and forehead are whitish : the top of the head ash-colored, mixed with olive : on each side of the neck is a spot of black feathers prettily tipped with white : the back ash-colored, bordered with olive brown : the scapulars and coverts of a reddish brown spotted with black : the quill-feathers of a dusky brown, the tips and outward edges of a yellowish brown : the breast of a light purplish red, having the verge of each feather yellow ; the belly white : the sides and inner coverts of the wings bluish. The tail is three

* The figure in the *folio* edition of this work seems to have been taken from a young bird.

inches and a half long; the two middlemost feathers are of a dusky brown; the others black with white tips: the end and exterior side of the outmost feathers wholly white.

Genus XVI. THRUSHES.

I. The MISSEL-BIRD.

La Grive ou Siferre, <i>Belon av.</i>	Tordo viscada, Zicchio. <i>Zinan.</i>
324.	39.
Turdus viscivorus. <i>Gesner av.</i>	La grosse grive, Turdus major.
759.	<i>Briffon av. ii. 200.</i>
<i>Aldr. av. ii. 273.</i>	<i>Lin. syst. 291.</i>
Tordo. <i>Olin 25.</i>	Biork-Traft. <i>Faun. Suec. sp. 216.</i>
Missel-bird, or Shrite. <i>Wil. orn.</i>	Dobbelt-Kramsfugl. <i>Brunnich.</i>
187.	231.
<i>Raii syn. av. 64.</i>	Zariker, Mistler, Zerrer. <i>Kram.</i>
Misseltoe-thrush, or Shreitch.	361.
<i>Charlton ex. 89.</i>	<i>Br. Zool. 90. plate P. f. 1.</i>

THIS is distinguished from all of the kind by its superior size; weighing near five ounces. Its length is eleven inches: its breadth sixteen and a half: in colors it very much resembles that well known bird the Throstle; and differs materially only in these particulars, viz. The spots on the breast are larger; and the inner coverts of the wings in this are white, in the Throstle yellow. Descr.

These birds build their nests in bushes, or on the side of some tree, generally an ash, and lay four or five eggs: their note of anger or fear is very harsh, between a chatter and a skreek; from whence some of

its *English* names: its song though is very fine, which it begins in the spring, sitting on the summit of a high tree. It feeds on insects, holly and mistletoe berries; the *Welsh* call it *Pen y llwyn*, or the master of the coppice, as it will drive all the lesser species of thrushes from it. The ancients believed that the *mistletoe* (the basis of bird-lime) could not be propagated but by the berries that had passed through the body of this bird; and on that is founded the proverb of *Turdus malum sibi cacat*.

It may be observed, that this is the largest bird, *British* or *foreign* (within our knowledge) that sings or has any harmony in its note; the notes of all superior being either screaming, croaking, chattering, &c. the pigeon kind excepted, whose slow plaintive continued monotone has something sweetly soothing in it. *Thompson* (the naturalist's poet) in the concert he has formed among the feathered tribe, allows the imperfection of voice in the larger birds, yet introduces them as useful as the base in chorus, though unpleasing by itself:

The jay, the rook, the daw,
And each harsh pipe (discordant heard alone)
Aid the full concert: while the stock-dove breathes
A melancholy murmur thro' the whole *.

* *Seasons. Spring.* l. 606.

II. The FIELDFARE.

La Litorne, *Belon av.* 328.Turdus pilaris. *Gesner av.* 753.*Aldr. av.* ii. 274.*Wil. orn.* 188.*Raii syn. av.* 64.

La Litourne, ou Tourdelle.

Briffon av. ii. 214.*Lin. syst.* 291.Kramsfogel, snoskata. *Faun. Suec.* *Br. Zool.* 90. plate P. 2. f. 1.*sp.* 215.*Dan.* Dobbelt Kramsfugl. *Cimbris*, Snarrer. *Norvegis*, Graae Trost, Field-Trost, Norden-Vinds Pibe, *Bornholmis*, Simmeren. *Br.* 232.

Kranabets vogel, Kranabeter.

Kram. 361.

THIS bird passes the summer in the northern parts of *Europe*; also in lower *Austria**. It breeds in the largest trees; † feeds on berries of all kinds, and is very fond of those of the juniper. Fieldfares visit our islands in great flocks about *Michaelmas*, and leave us the latter end of *February*, or the beginning of *March*. We suspect that the birds that migrate here, come from *Norway*, &c. forced by the excessive rigor of the season in those cold regions; as we find that they winter as well as breed in *Prussia*, *Austria* ‡, and the moderate climates.

These birds weigh generally about four ounces; *Descr.* their length is ten inches, their breadth seventeen. The head is ash-colored inclining to olive, and spotted with black; the back and greater coverts of the wings of a fine deep chesnut; the rump ash-colored: the tail is black; the lower parts of the two middlemost feathers, and the interior upper sides of the outmost feathers excepted; the first being ash-colored, the latter white. The legs are black; the talons very strong.

* *Kramer elench.* 361. † *Faun. Suec. sp.* 78. ‡ *Klein hist. av.* 178.

III. The T H R O S T L E.

La petite Grive. *Belon av.* 226.

Turdus minor alter. *Gesner av.*
762.

Aldr. av. ii. 275.

Storno. *Olin* 18.

Mavis, Throstle, or Song thrush.

Wil. orn. 188.

Raii syn. av. 64.

La petite Grive, Turdus minor.

Briffon av. ii. 205.

Turdus musicus. *Lin. syst.* 292.

Faun. Suec. sp. 217.

Turdus in altissimis. *Klein stem.*

av. tab. 13.

Weindroschl, Weißdroschl, Som-

merdroschl. *Kram.* 361.

Cimbris & Bornholmis, Vündrossel.

Norvegis, Tale Traft. *Br.* 236.

Br. Zool. 91. plate P. f. 2.

Descr. **T**HIS species weighs three ounces; its length is nine inches; its breadth thirteen and a half, for a farther description, the reader is referred to that of the first kind. The throstle is the finest of our singing birds, not only for the sweetness and variety of its notes, but for long continuance of its harmony; for it obliges us with its song for near three parts of the year. Like the missel-bird, it delivers its music from the top of some high tree; but to form its nest descends to some low bush or thicket: the nest is made of earth, moss, and straws, and the inside is curiously plaistered with clay. It lays five or six eggs, of a pale bluish green, marked with dusky spots.

IV. The REDWING.

Le Mauvis. *Belon av.* 327.*tab.* 20. *fig.* 1.Turdus minor. *Gesner av.* 761.*Pl. enl.* 51.T. Illas feu Tylas. *Aldr. av.* ii.
275.Turdus iliacus. *Lin. syst.* 292.Redwing, Swinepipe, or Wind
Thrush. *Wil. orn.* 139.Klera, Kladra, Tall-Traft. *Faun.*
Suec. sp. 218.*Raii syn. av.* 54.Rothdroschl, Walddroschl, Win-
terdroschl. *Kram.* 361.Le Mauvis. *Briffon av.* ii. 208.*Br. Zool.* 91. plate P. f. 2.

THESE birds appear in *Great-Britain* a few days before the fieldfare; they come in vast flocks, and from the same countries as the latter. With us they have only a disagreeable piping note; but in *Sweden* during the spring they sing very finely, perching on the top of some tree among the forests of maples. They build their nests in hedges, and lay six bluish green eggs spotted with black*.

They have a very near resemblance to the thristle; *Descr.* but are less, only weighing two ounces and a quarter: their colors are much the same; only the sides under the wings and the inner coverts in this are of a reddish orange; in the thristle yellow: above each eye is a line of yellowish white, beginning at the bill and passing towards the hind part of the head. The vent feathers are white.

Besides these three sorts of thristles, the author of the *epitome of the art of husbandry*†, mentions a fourth kind under the name of the *heath thristle*, which he commends as far superior to the others in its song:

* *Faun. Suec. sp.* 218.† *By J. B. gent. third edit.* 1685.

he says it is the least of any, and may be known by its dark breast; that it builds its nest by some heath-side, is very scarce, and will sing nine months in the year.

V. The BLACKBIRD.

Le Merle noir. <i>Belon av.</i> 320.	<i>Pl. enl.</i> 2.
Merula. <i>Gesner av.</i> 602.	<i>Turdus merula. Lin. syst.</i> 295.
<i>Aldr. av.</i> ii. 276.	<i>Kohl-Traß. Faun. Suec. sp.</i> 220.
Merlo. <i>Zinan.</i> 39. <i>Olin</i> 29.	<i>Dan. & Norvegis Solfort. Br.</i>
<i>Wil. orn.</i> 190.	234.
<i>Raii syn. av.</i> 65.	<i>Amsel, Amarl. Kram.</i> 360.
La Merle. <i>Briffon av.</i> ii. 227.	<i>Br. Zool.</i> 92.

THIS bird is of a very retired and solitary nature; frequents hedges and thickets, in which it builds earlier than any other bird: the nest is formed of moss, dead grass, fibres, &c. lined or plaistered with clay, and that again covered with hay or small straw. It lays four or five eggs of a bluish green color, marked with irregular dusky spots. The note of the male is extremely fine, but too loud for any place except the woods: it begins to sing early in the spring, continues its music part of the summer, desists in the moulting season; but resumes it for some time in the first winter months.

Descr.

The color of the male, when it has attained its full age, is of a fine deep black, and the bill of a bright yellow: the edges of the eyelids yellow. When young, the bill is dusky, and the plumage of a rusty black, so that they are not to be distinguished from the females; but at the age of one year they attain their proper color.

VI. The

VI. The RING-OUZEL.

- | | |
|---------------------------------------|--|
| Le Merle ou Collier. <i>Belon av.</i> | <i>Raii syn. av.</i> 65. |
| 318. | <i>Morton Northampt.</i> 425. |
| Merula torquata. <i>Gesner av.</i> | Le Merle a Collier. <i>Briffon av.</i> |
| 607. | ii. 235. |
| Merlo alpestre. <i>Aldr. av.</i> ii. | <i>Turdus torquatus. Lin. syst.</i> 296. |
| 282. | <i>Faun. Suec. sp.</i> 221. |
| <i>Wil. orn.</i> 194. Rock or Moun- | <i>Dan.</i> Ringdroffel. <i>Norvegis</i> |
| tain-ouzel. 195. | Ring Trost. <i>Br.</i> 237. |
| Mwyalchen y graig. <i>Camden</i> | Ringlamfel. <i>Kram.</i> 360. |
| <i>Brit.</i> 795. | <i>Br. Zool.</i> 92. plate P. 1. f. 1. |

THE ring-ouzel inhabites the mountanous parts of these islands; and are found in small flocks of five or six. In size they are superior to the black bird: their length is eleven inches; their breadth seventeen. The bill in some is wholly black, in others the upper half is yellow: on each side the mouth are a few bristles: the head and whole upper part of the body are dusky, edged with pale brown: the quill-feathers, and the tail are black. The coverts of the wings, the upper part of the breast, and the belly are dusky, slightly edged with ash-color. The middle of the breast is adorned with a white crescent, the horns of which point to the hind part of the neck. In some birds this is of a pure white, in others of a dirty hue. In the females and in young birds this mark is wanting, which gave occasion to some naturalists to form two species of them.

VII. The WATER-OUZEL.

Merula aquatica. <i>Gesner av.</i>	Le Merle d'eau. <i>Briffon av. v.</i>
608.	252.
Lerlichirollo. <i>Aldr. av. iii.</i> 186.	Merlo aquatico. <i>Zinan.</i> 109.
Water-craw. <i>Turner.</i>	<i>Norvegis</i> , Fosse Fald, Fosse Kald,
The Water-ouzel, or Water-	Quærn Kald, Stroem-Stær,
crake. <i>Wil. orn.</i> 149.	Bække Fugl. <i>Brunnich.</i> 200.
<i>Raii syn. av.</i> 66.	Wasser-amfel, Bach-amfel. <i>Kram.</i>
<i>Sturnus cinclus. Lin. syst.</i> 290.	374.
Watnstare. <i>Faun. Suec. sp.</i> 214.	<i>Br. Zool.</i> 92. plate P. 1. f. 2.

THIS bird frequents small brooks, particularly those with steep banks, or that run through a rocky country. It is of a very retired nature, and is never seen but single, or with its mate. It breeds in holes in the banks, and lays five white eggs adorned with a fine blush of red. It feeds on insects and small fish; and as Mr. *Willoughby* observes, though not web-footed, will dart itself after them quite under water. The nest is constructed in a curious manner, of hay and fibres of roots, and lined with dead oak leaves, having a portico, or grand entrance made with green moss.

Descr.

Its weight is two ounces and a half: the length seven inches one quarter: the breadth eleven: the bill is narrow, and compressed sideways: the eyelids are white: the head, cheeks, and hind part of the neck are dusky, mixed with rust color: the back, coverts of the wings, and of the tail also dusky, edged with bluish ash-color: the throat and breast white: the belly ferruginous, vent feathers a deep ash-color: the legs are of a pale blue before, black behind:

behind: the tail short and black, which it often flirts up, as it is sitting.

These are all the birds of this genus that can claim a place in this work. The rose colored ouzel, *Wil. orn.* 194. *Edw.* 20. a foreign bird, has been shot at *Norwood* near *London*; for its history we refer our readers to the appendix.

Genus XVII. The S T A R E.

I. The S T A R E.

L'Estourneau. *Belon av.* 321.

Sturnus. *Gesner av.* 746.

Aldr. av. ii. 284.

Stare, or Starling. *Wil. orn.* 196.

Raii syn. av. 67.

L'Etourneau. *Briffon av.* ii.

439.

Sanfonet. *Pl. enl.* 75.

Storno. *Zinan.* 69.

Olin. 18.

Sturnus vulgaris. *Lin. syst.* 290.

Stare. *Faun. Suec. sp.* 213.

Hasselquist. itin. 284.

Danis & Norvegis Stær. Br. 229.

Starl. *Kram.* 362.

Br. Zool. 93. plate P. 2. f. 1.

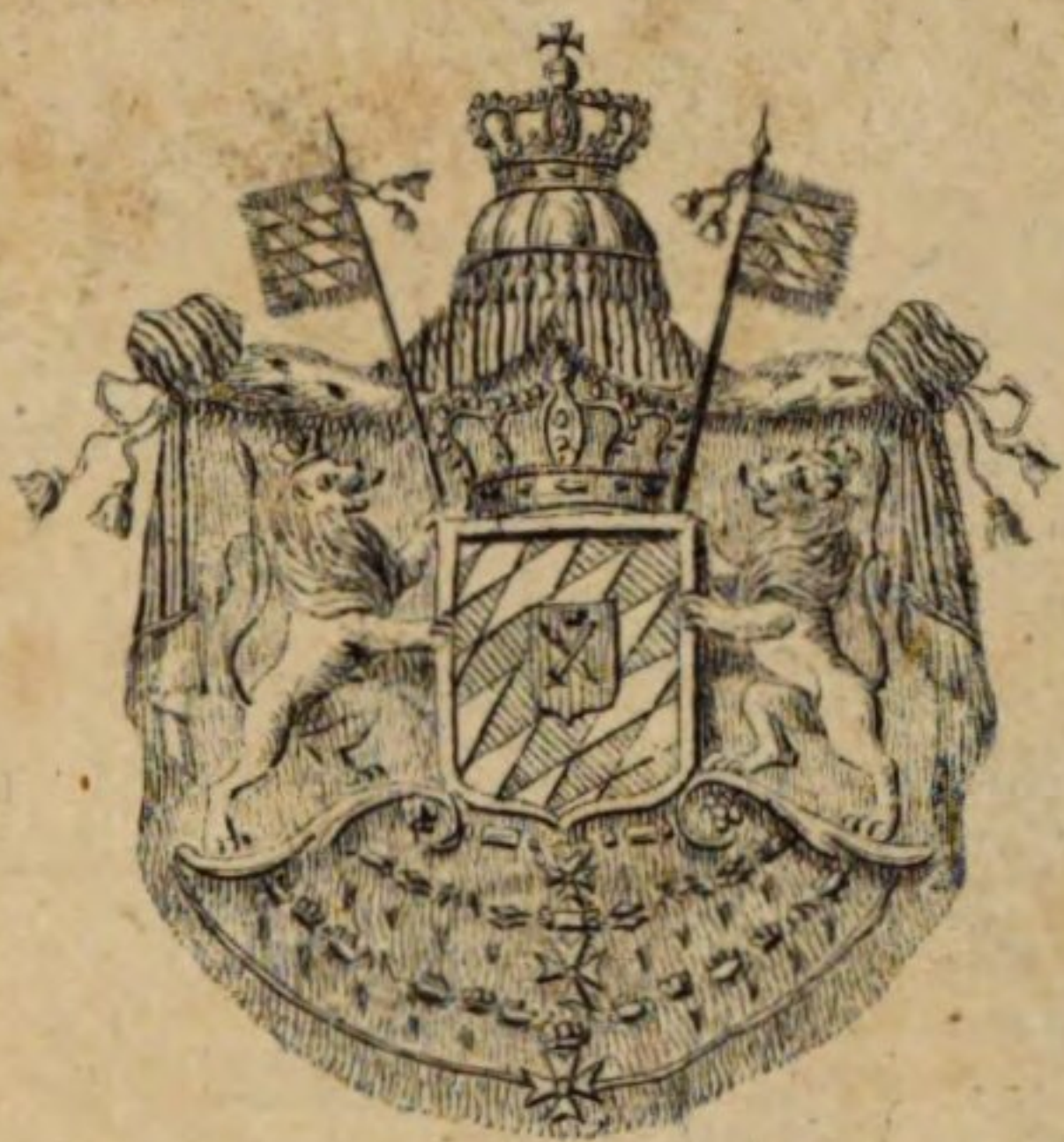
THE Stare breeds in hollow trees, eaves of houses, towers, ruins, cliffs, and often in high rocks over the sea, such as those of the *Isle of Wight*. It lays four or five eggs, of a pale greenish ash color: and makes its nest of straw, small fibres of roots, and the like. In winter stares assemble in vast flocks, and feed on worms and insects. Their flesh is so remarkably bitter as to be scarce eatable; they are very docil birds; and may be taught to speak.

The weight of the male of this species is about three ounces; that of the female rather less. The length is eight inches three quarters: the breadth fourteen inches

Descr.

inches and a half: the bill is an inch and one-fourth long, strait, very much depressed, and the base of the lower mandible deeply furrowed on each side: the nostrils are oval surrounded by a prominent rim: the tongue is hard, horny and cloven: the irides hazel, whiter on their upper part: the feathers on the head, neck and upper part of the back are black, varied with a most beautiful green and purple as opposed to different lights; the tips of these on the head are of a yellowish brown; those on the neck are white: their form is singular, being long, narrow and pointed: the lower part of the back, the rump, the coverts of the wings, and the lower part of the breast are black glossed with green; the tips of the feathers of all except those on the breast are yellowish, those of the latter white: the belly is glossed over with a deep purple: the vent feathers are black, very slightly tinged with green, and their edges are white: the first and second quill-feathers are dusky, and the lower part of their exterior side is slightly edged with a reddish yellow: the exterior webs of all the others are also dusky; the interior incline to ash-color, but both are edged with the same color as the former, only more deeply on the feathers next the back: beneath this yellowish border that adorns the lesser quill-feathers is another of black: a changeable green also marks their exterior sides. The tail is short; the wings reach, when closed, within half an inch of the end: the middle of each feather is of a deep ash-color; then succeeds a border of black edged with a yellowish red. The legs and feet are black tinged with red.

Genus



**BIBLIOTHECA
REGIA
MONACENSIS.**

Pennant, Thomas

British zoology

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London 1768 - 1769

Res/Zool. 562-1

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